INFORMATION TECHNOLOGY IN HONG KONG: A MARKETING PLAN FOR THE SHARED RESOURCES CONCEPT

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ABSTRACT

The main theme of this report is to explore the feasibility and marketing potential of the Shared Resources Concept which is being used by a dozen commercial buildings in the world. The Concept aims to introduce office automation and communcation services on a shared basis to a multi-tenant commercial office building. In Hong Kong, the Concept is first used by the Exchange Square which is the only building in Asia employing such a 'Shared Resources' approach to make itself more attractive and competitive in the property market.

This research uses a case study method centering on the Exchange Square to investigate the future development potential and the attitudes and perception of the tenants towards this Concept. The information technology business in Hong Kong is also studied to establish important base data for the market profile. A marketing plan is then proposed to promote the Shared Resources Concept to the principal developers in Hong Kong and to the potential tenants who would be the end-users of the Shared Resources installed in the commercial office building.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

CHAPTER I

INTRODUCTION

Modern office operations rely, to a great extent, on advanced information technology for information storage, transmission, processing and even decision-making. Traditionally, most companies would install discrete terminals and office facilities for their own particular uses. Recently, there has been a new trend in commercial building in which a built-in integrated data processing and telecommunications network is supplied by the developer so that different tenants can simply 'plug in electrically' and obtain various office automation services.

This idea of shared communications and office automation resources, planned as an integral part of a new commercial building, is at the forefront of building technologies. About a dozen operational examples exist: CityPlace in Hartford, Connecticut, was the first building to provide tenants with a new technology, integrated telecommunications network. Chicago's Madison Plaza and , in New York the National Westminster Bank headquarters as well as Barclays Bank International's new building on Wall Street also have integrated systems. Other buildings such as Tower 49 in New York, the LTV Centre in Dallas, and the Citicorp Centre in San Francisco, are following suit.

The concept evolves around a shared resources

approach on a multi-tenant basis. The equipment and products involved are not the central issue as these products will certainly continue to change dynamically and drastically due to technology evolution, price and performance. The essential element is how to make the total service package as comprehensive as possible. The shared resources may include systems' data base, data and telegraph switching and even office services e.g. facsimile, photocopying and binding and courier service.

The benefits of shared hardware resources are many-fold. Less capital outlay is required. In fact, customers do not have to incur large capital outlay for installation. Naturally, by sharing integrated resources, customers will not own obsolete equipment at the end. The dilemma of how to get rid of obsolete but functioning equipment is gone. One of the most important characteristics of this shared resources concept is that it is an integration with controlled and anticipated growth --- not merely automaton. Therefore, it results in high degree of flexibility. At the same time, it reduces equipment crowding and increases equipment utilization. As the customers are not buying hardware but rather a solution tailored to their individual needs and problems, they will be benefiting from more options and more technical expertise. The final benefit from the concept to a tenant is immediate availability of equipment.

1.1 Nature of Study

The dozen examples of overseas buildings which we have identified in the previous section employ the so-called Shared Resources Concept (SRC) so that tenants can use modern information handling facilities on a shared basis. The Concept also claims to increase the competitive edge of the 'Shared Resources' buildings over other commercial buildings. Hong Kong is ranked as the third largest financial centre in the world and its status depends heavily on an efficient communication and office automation system. If a commercial office building can assure its tenants that the most advanced information technology is readily available to them from the developer and in a cost effective way, it will lessen the burden of office automation planning for most companies. The centralised and shared communication and data processing system will strengthen the communication link of the companies with the rest of the world as a special team of maintenance engineers will ensure the smooth running of the system. Moreover, this feature makes the commercial building more attractive than other buildings especially when many Hong Kong offices are left unoccupied.

Given this situation, the main theme of our study is to explore the feasibility and further marketing potential of this Concept in Hong Kong. A case study will be developed centering on the Exchange Square which is providing modern information technology services as a "Shared Resources"

package to its tenants. It is the only building using the Concept in Asia. As claimed by the Hong Kong Land Group which is the developer: 'Exchange Square, even among the above mentioned highly sophisticated buildings, is the most fully integrated of all data communications and telecommunications on a multi-tenant basis.'

1.2 Research Study Objectives

As the Concept is fresh to Hong Kong, great effort has to be spent on promoting this Concept to the potential users. Therefore, the following research objectives have been developed:-

(1) To investigate the attitudes and perception of the existing tenants of the Exchange Square towards this Concept.

(2) To locate those services of the SRC which are required by the major tenants.

(3) To explore the problems encountered in the application of the Shared Resources services.

(4) To study the future development potential of the SRC in Hong Kong.

From these, a marketing plan for promoting the SRC to the local developers, the future potential tenants and the exisiting tenants will be designed. We want the local developers to install the SRC in another commercial building and to increase its usage by the future tenants and by the exisiting tenants in the Exchange Square.

CHAPTER II

Methodology

After defining the broad problem area, it is now necessary to first collect the necessary background information which has been obtained in the following ways:-

(1) Literature Survey

(a) Library Research

Most of the reference materials were collected in this way. Since our research deals with the information technology business, which is better known as office automation in Hong Kong, our library research was directed towards information relating to this aspect. Books, periodicals, and newspapers were all included in our scope of library research. Books classified under the topic of office automation and information technology were scanned for useful information. Magazines such as Asian Computer Monthly, PC Asia, Hong Kong Computer Journal, Business Computing and Communications, and Automated Office etc. were all used for retrieving updated base data. In this report, useful information are quoted from these resources and their titles are shown in the bibliography.

(b) Advertising Brochures

Information was also collected from the

advertising brochures of various office automation companies. The brochures introduce the readers to the features and application of some modern information processing office equipment available in Hong Kong.

(2) Pilot Study

While the literature survey was in process, a pilot study on the Exchange Square was conducted by arranging interviews with the building developer, the HK Land Property Co. Ltd. and C & W Systems Services. The latter is responsible for installing the shared communications and office automation systems of the building. During the interviews, we also asked the HK Land and C & W spokesmen about the response and problems of application of the tenants towards this Concept. The marketing techniques of the C & W in selling the Shared Resources was also studied so as to provide guidelines for our marketing plan. Interviews were also arranged with another property company in order to study the feasibility of this concept in a commercial building. A list of the interviews conducted is included in the bibliography.

(3) Questionnaire Survey

In this phase, we conducted a questionnaire survey on the tenants of the Exchange Square to establish base data for our research objectives. Samples of the covering letter and the questionnaire are shown in appendices 1 and 2. The questionnaire is divided into 4 parts which are as follows:-

(a) Part 1 --- General Information (10 questions).

Question 1 to 3 ask about the nature of business and the company size in terms of number employees and area to see whether the SRC has any particular appeal for any particular industry and company size.

Question 4 to 5 are to see whether Hong Kong has more new comers so as to get a feel of the property market.

Question 7 to 10 are to test the awareness of the tenants towards SRC and their office auotmation requirement. Question 10 distinguishes the users and the non-users of the SRC.

(b) Part 2 --- For users of the SRC (8 questions).

Question 11 to 14 are to see which services are commonly used by the tenants and which services that they prefer to install on their own. This set of questions will help us to locate the major requirement of the tenants (objective 2). It also helps us establish their perception towards the SRC as we expect that the more they use, the more they trust the services.

Question 15 to 17 are to explore the problems encountered in the application of the SRC and how the tenants tackle them.

Question 18 gives us a framework for guessing the cost of using the SRC.

(c) Part 3 --- for non-users of the SRC (7 questions).

Question 19 to 22 are to test the attitudes and perception of the non-users towards the SRC so that reasons of not using can be located. Q.20 and Q.21 also help us to

see the future developement potential of the Concept.

Question 22 to 24 reveal to us the office automation requirement of the non-users.

Question 25 indicates the likely competitor of SRC.

(d) Part 4 --- For users and non-users (4 questions).

Question 26 to 29 give us some insight about the general office automation trend within most companies. Q.26 and Q.27 will help us to locate the person who is in charge of the office automation of the company so that we can effectively direct our marketing programme at him.

2.1 Scope of Research

Finally, we then propose our marketing plan for promoting this new concept in Hong Kong. The plan is constructed based on the following steps:-

(1) Product profile --- A clear cut picture of SRC is established. Its strength, weaknesses and opportunities are identified.

(2) Market and competitor profile --- The market profile of the information technology business in Hong Kong is investigated. The office automation companies are also the potential competitor of SRC and they are studied in this section too. A brief review of the property market is also done as SRC is an attraction added to the office building.

(3) Customer Profile --- Information is taken from the questionnaire survey to establish a profile of the

customers using the Shared Resources in the Exchange Square.

(4) Market segmentation --- Target segment is set.

(5) Establish the marketing objectives, strategies and actions.

(6) Controlling measures of the marketing plan.

The first three steps comprise the analytical phase of our plan while the last three steps are in the strategic phase. We make up the plan based on the information collected from our library research, pilot study, interviews, and questionnaire.

CHAPTER III

PRODUCT CONCEPT PROFILE

3.1 Definition

The term "Shared Resources Concept" refers to the idea of sharing an integration of telecommunications and office automation systems on a multi-tenant basis. Traditionally, buildings have been built shell first and then separate energy, telecommunications and office automation systems have been installed. With the latest building technology, all these systems are not only considerably upgraded, but they can be integrated and installed at the construction stage, resulting in buildings completely attuned and adjusted to their environment.

To have an in depth understanding of what "integration" meant, it was decided to trace the development of telecommunications over the past eighty or so years. We observe the development of a number of discrete services. The earliest being the telegraph services, which was followed later by the telephone service.

With the development of the telephone, other services such as the public telex followed. Recently, with the availability of high speed data communications, packet switching and document transfer, services have become available on a widespread international basis.

Voice based services have developed from the early manual systems, through various stages of automatic operations, to the situaiton today whereby the majority of the world can be contacted through fast and high-quality international subscriber-dialled public services.

Fascimile has been with us for many years as an efficient way of communicating written or pictorial information. It has never had the same penetration as, say, telex; probably because until relatively recently international standards were not available. However, we are observing a resurgence of the medium, especially as the group B standard provides a bandwidth efficient method of transmitting information in facsimile form. Facsimile now seems to have found a niche for itself as a complement to electronic mail and communicating word processor applications.

In addition to these public services, many large organisations, be they government or private institutions, have established "private" systems for their own exclusive use. Good examples are the airlines and the banks, which have been in the private telecommunications business for many years.

In the past, a major feature of both the private and public communications utility has been the separation of services, and the need for a different terminal device for each service. The telephone for access to telephone service has been quite distinct from the teleprinter for telex, the

facsimile transmitter / receiver for the facsimile service or the data processing terminal for access to the organisation's main computer system. Communication channels were, and in most cases still are independent, although some elaborate and often not very efficient methods of maximizing channel utilisation have been derived.

The principal difference between sharing or alterative working and integrated operation is that in the shared or alternative use situaiton, different services cannot directly interact. A channel used for say, data transmission and telegraph transmission will keep both applications totally separate. Any interfacing will need to be carried out externally to the communication channel and will usually involved speed and protocol conversion. In the integrated situation, different applications or services can share the same channel in a totally compatible way (within the capability of the channel). This means that the channel is transparent to the information it carries and that the most efficient use can be made of available bandwidth or bit rate. In most cases there is no need for speed or protocol conversion. Here, the ideal case is to integrate voice, telex, facsimile and data services into a single system.

However, the Shared Resources Concept is not merely the integrated telecommunication/office automation systems or any high-tech equipment. What is more important is the " Total Package Approach ". What is being marketed a concept and an idea. We are offering ourselves as a systems integrator, and as an owner-operator for the developers. We

are not selling a package of computers, PC, PABX, telephones etc. One of our jobs is to convince the developers that integrating controls systems with communication systems will be the wave of the future. This idea of incorporating a modern and efficient design with technology will catch on not just for the snob appeal but as a valuable marketing strategy for building owners in times when more ordinary office space remains unoccupied.

3.2 A Case Study : Exchange Square

In Hong Kong, we are lucky to have a real life example of how this idea of shared communications and office automation resources has been planned as an integral part of a new commercial building. With about a dozen operational examples that exist in the world, the Exchange Square project ranks among the world's biggest. It is the first time the Shared Resources Concept has been employed on such a magnitude anywhere in Asia.

The building is an eye-riveting glass and rose granite , 52-storey twin-tower, with unusually curved sections. A podium at the base, linking the two buildings, houses Hong Kong's new unified stock exchange. Both towers, comprising the first phase development, consist of 1.2 million square feet of space. A planned second phase, consisting of a third tower on the adjacent site is under construction.

As prestigious commercial projects go, the HK$

1.5 billion (US$ 192 million) Exchange Square is one of a kind in Hong Kong. Although some of the 24-hour services it provides can be found in other buildings, the project is the first to combine everything within one complex. It was designed to provide certain features like variable, zoned air-conditioning, as well as access and security all round the clock. One unusual aspect of the structure is its underfloor ducting system, designed to accomodate the communications needs of clients for the next 10-20 years. The trunking underneath the concrete floors is intended to fit all wiring for computers, word processors, electricity and telephones at 6-feet intervals, allowing greater flexibility in office layouts than conventional wiring systems. It also eliminates the prohibitive expense of installing raised floors as new tenants needs arise.

The most significant aspect of Exchange Square is the comprehensive range of its international communication network. In November 1984, HongKong Land signed an agreement with Cable & Wireless Systems to establish a communications center on the 37th floor of Two Exchange Square, operated and maintained by CWS (Appendix 3). Tenants stand to gain from the shared facilities concept of the entire operation.

Facilities that are available to Exchange Square tenants are :

- a digital PABX
- telex, telegraph and data switching
- mass data storage and data base management
- uninterruptable power supplies

- Intercom system between tenants and communication center
- Facsimile
- secretarial services
- reprographics bureau
- conference room equipped for audio-conferencing
- 24-hour answering service
- consumer ticketing service (Ticketmate)
- courier service

PABX

At the heart of the system is a large digital partitioned PABX (Private Automatic Branch Exchange) - the most advanced telephone switchboard for routing calls around an office building and connecting to outside phone networks (Appendix 4). Designed for rapid expansion to meet any level of demand, it is the PABX which makes possible most of the services which are available to tenants. The up-to-minute digital circuitry gives the PABX the ability to carry both voice and data rapidly, inexpensively and accurately. It serves as a pathway tying directly into such data communications services as packet switching, dialcom, or leased data circuits.

In conjunction with the PABX, there is also a 24-hour answering service (which depending on demand, can be upgraded to voice mailbox). The answering service can be associated with an existing electronic mail system. Further, one can access computer data bases anywhere in the world,

utilising the cost-effective packet switching technique. Access to the Hong Kong Telephone's Viewdata service is also possible through the PABX.

Most existing display terminals will be able to be used in conjuction with the PABX system. Thus a tenant with an existing system can probably have his terminals programmed into Exchange Square's PABX if he chooses not to invest in the handset and terminal equipment which is available through Systems Service.

Systems' Data Base

Computers providing a centralized data base and offering tenants basic data base functions such as word processing, payroll, inventory control, accounts receivable, accounts payable and general ledger are available. The data base is accessible through the terminals, or through other systems which tenants might choose.

Data and Telegraph Switching

A data switch is also installed to handle data between tenants' terminals and internal and external data, telex and telegraph networks. This is interconnected to the PABX and data base computers.

Additionally, it is possible to design customised data base software for individual tenants in order to meet their own special requirements. At the same time, private Videotex systems can be established by tenants and programmed to run on the communications center's computer.

Office Services

Systems Services also offers a range of office services to Exchange Square tenants with the aim of making the total service package as comprehensive as possible, e.g. facsimile, photocopying and binding in the reprographics bureau and courier service. A conference room, which accomodates 12 people, is equipped with projection and audio-conferencing equipment.

3.3 Benefits of Shared Resources Concept

It has been the policy in Hong Kong for vendors to sell equipment -- a lease-purchase contract and generally a three-to-five year commitment, with a full cash payout clause for termination of the contract. For the Exchange Square tenants, there is no need for contracts on the equipment but will start with multiple rental plans which are cost competitive. Customers do not incur large capital outlay for installation. In addition, a comparative cost study conducted by the Hong Kong Land shows that major tenants using the services of Shared Resources would save considerable cost than using their own equipments (Appendices 5 & 6).

Tenants can also opt to purchase. And they will not own obsolete equipment at the end of the contract period. The dilemma of how to get rid of the existing equipment -- instead of forcing oneself to use tired old hardware just because one cannot cost-justify throwing away something while

it's still functioning, even though it's not providing new capabilities -- is gone.

The integration of communications and office automation systems in Exchange Square is with controlled and anticipated growth -- not mere automation. In an integrated office of Exchange Square, the tenant can choose between:-

(1) An integrated workstation, which will combine voice and data communications features in a single desk-top terminal designed for business managers.

(2) The multi-function workstation, which provides the operator with data processing, word processing, and communications capabilities, or, if the tenant have no need for data processing at this stage.

(3) A communications terminal ideally suited for heavy communications and word processing users. Any one of these workstations provides a cost effective way of accessing the full range of facilities, and, at the same time, reduces equipment crowding and increases equipment utilization. This benefit improves office design and arrangement. A comparison of office layout using discrete eqipments and the one using multifunction and integrated workstations of SRC are shown in appendices 7 & 8.

There is more equipment options because CWS is not selling the tenants hardware but rather they are selling a solution to the tenants' individual needs and problems. It is also safe to say that the tenants are benefiting from more technical expertise.

The final benefit from shared hardware resources

to a tenant in Exchange Square is immediate availability of equipment. The equipments will be prepared for the arrival of tenants and will have equipment available for immediate installation, thereby eliminating one more problem -- the delay in occupancy due to delay in availability of equipment.

And last but not the least, the shared human resources concept. Systems Services has arrangement with a secretarial services and employment agency to offer Exchange Square tenants the exclusive benefits of professional equipment operation, personnel back-up, both permanent and temporary, and word processing services. This gives tenants an instant source of trained personnel to ease staffing problems as they occur.

CHAPTER IV

THE MARKET PROFILE OF INFORMATION TECHNOLOGY BUSINESS IN HONG KONG

As mentioned the Shared Resources Concept is new to Hong Kong and that Exchange Square is the only commercial building in Asia which provides the tenants with advanced information technology facilities. In fact, the information technology business, which is better known as office automation, is not uncommon in Hong Kong. In this industry, there are many companies providing services from office equipment to consultancy and maintenance.

It is difficult to obtain any reliable figures for the number of office automation companies in Hong Kong.It is however, estimated that there are approximately 160 companies which provide automation equipment like wordprocessors, computers, communication equipments, consultancy services and even facilities like shredders, paper handling machines and office furniture. Table 4.1 shows the types of equipment and services provided by office automation equipment in Hong Kong. Moreover, 20 office automation companies have been selected and interviews were conducted over the telephone to see what particular types of equipment and service are available from them. Table 4.2 illustrates our findings from the selected companies.

TABLE 4.1

TYPES OF EQUIPMENT AND SERVICES PROVIDED BY OFFICE AUTOMATION COMPANIES IN HONG KONG

Accounting Machines

Addressing Machines

Audio Visual Equipment

Binding/Punch Machines and Material

Boards

Calculators

Cash Registers

Communication Equipment
- -document conveyors
- -facisimile
- -intercoms
- -local area network
- -interpretation systems
- -modems
- -paging systems
- -public address systems
- -mobile telephones
- -telephone accessories
- -telephone systems
- -telex processing equipment

Composing Equipment

Computers

Copiers and Supplies

Dictation Equipment

Embossing and Stamping Equipment

Environmental Control

Filing

Laminating Machines and Supplies

Language Laboratory

Mail Handling Equipment

Micrographic Equipment

Money Handling Machines

Offset Printing Equipment

Paper

Paper Handling Equipment

Printers

Security Equipment and Systems

Services
- -computing/EDP
- -computer data delivery & storage
- -consultancy
- -document delivery
- -forms design
- -mailing
- -microfilming & processing
- -printing
- -ticketing
- -translation

Shredders

Time Recorders

Typewriters & Supplies

Wordprocessors & Accessories

TABLE 4.2

TYPES OF EQUIPMENT AND SERVICE PROVIDED BY 20 LOCAL OFFICE AUTOMATION COMPANIES

	ABA	CWS	Chevalier	CSL	Dodwell	Gilman
Calculators						*
Communications						
facsimiles		*	*	*		*
intercom		*	*	*		
interpretation eqm.						
modems		*		*		
paging systems		*	*	*		
public address sys.		*				
mobile telephones				*		
telephone access.	*	*		*		
telephone systems			*			
telex pro. eqm.						
Computers	*	*	*	*	*	
Copiers & Supplies	*		*		*	*
Dictation Eqm.						
Filing	*		*		*	*
Micrographic Eqm.						
Services						
computing/EDP		*				
microfilming & pro.						
printing		*				
ticketing		*				
Typewriters & Suppl.	*		*		*	*
WP & Accessories	*		*	*	*	

* Item available

TABLE 4.2 (Cont'd)

TYPES OF EQUIPMENT AND SERVICE PROVIDED BY 20 LOCAL OFFICE AUTOMATION COMPANIES

	HK Communication Eqm.	HP	IBM	Jardine	Jebsen	Kodak	NCR
Calculators		*		*	*		
Communications							
facsimiles				*	*		
intercom	*						
interpretation eqm.							
modems			*				
paging systems					*		
public address sys.					*		
mobile telephones							
telephone access.	*				*		
telephone systems	*				*		
telex pro. eqm.					*		
Computers		*	*	*	*	*	*
Copiers & Supplies			*	*			
Dictation Eqm.			*				
Filing					*		
Micrographic Eqm.				*		*	
Services							
computing/EDP							*
microfiling & pro.				*		*	*
printing							*
ticketing							
Typewriters & Suppl.			*	*	*		
WP & Accessories		*	*		*		

* Item available

TABLE 4.2 (Cont'd)

TYPES OF EQUIPMENT AND SERVICE PROVIDED BY 20 LOCAL OFFICE AUTOMATION COMPANIES

	Olivetti	Olympia	Philips	Plessy	Rank Xerox	3M	Wang
Calculators	*						
Communications							
facsimiles				*	*	*	
intercom			*				
interpretation eqm.			*				
modems				*			
paging systems			*				
public address sys.			*	*			
mobile telephones							
telephone access.				*			
telephone systems			*	*			
telex pro. eqm.							
Computers	*		*				*
Copiers & Supplies					*	*	
Dictation Eqm.			*				
Filing							
Micrographic Eqm.						*	
Services							
computing/EDP							
microfiling & pro.							
printing							
ticketing							
Typewriters & Suppl.	*	*			*		
WP & Accessories	*	*	*		*		*

* Item available

From the table, it is found that some companies are specialised in providing one or two products. For example, HP, IBM, NCR and Wang sell computers, wordprocessors and their accessories mainly. Rank Xerox spends their effort chiefly in the copying market while Kodak is in micrographic equipment. Meanwhile, some companies provide diversified services like calculators, communication services, computers, copiers and wordprocessors etc. Typical examples in this category are Gilman, Jardine and Jebsen. On the whole, office automation companies who are manufacturers as well would like to sell their products mainly whereas those companies who act as authorised dealers would provide various services.

Competition in the office automation market is very fierce and participants must develop their own strength so as to maintain their foothold. Some of the companies discussed are the market leaders in their specialized fields and it is likely to find that the most successful companies in this changing business have and will develop the following 6S characteristics:-

(i) Selling --- They have their own distribution network and dedicated sales forces.

(ii) Software --- Most of their information and communications services are now software-based and this has added value to their products.

(iii) Size --- Most successful companies will grow in scope and sales turnover as their products

become more sophisticated.

(iv) Specialization --- Most companies will specialize in particular products.

(v) Style --- New products and services will be successfully run by the founding companies.

(vi) Stock financing --- The successful ones will have negligible debt like IBM, DEC and Hewlett-Packard, Sperry, Honeywell and AT & T all have less than 30 percent debt.

The market size of the office automation business can be estimated from the import statistics of office equipment into Hong Kong. Table 4.3 shows the dollar amount of imported equipment from 1983-1985 (Jan-Oct figures for 1985). We can see that the complete microcomputer system accounts for the greatest percentage (193%) of growth in 1984 and it is expected that its amount will exceed more than $470 million in 1985 since the microcomputer market is still growing. For large computers, computer accessories and calculating machines, they do not have a similar growth percentage as that of the microcomputer but most of them show an increase in the amount imported.

The telecommunications equipment had a 124% growth in 1984 and was the second product category which had the largest growth after the microcomputer. However, it is expected that it will not attain the comparable amount of growth in 1985 since the total import volume up to October is only 43% that of 1984.

TABLE 4.3

IMPORT STATISTICS OF OFFICE EQUIPMENT INTO HONG KONG

Item	Value (HK$) 1983	1984	% Growth	1985(Jan-Oct)
Calculating Machines Electronic Programmable	23,205,830	28,335,510	22.1	17,960,787
Calculating Machines Electonic Pocket Type	218,195,406	392,287,692	79.8	499,772,448
Calculating Machines Not Pocket Type	36,747,315	50,019,883	36.1	59,879,700
Complete Microcomputer Systems	177,216,032	519,248,731	193.0	462,150,259
Other Complete Digital Data Processing Machines	141,597,173	202,593,169	43.1	66,932,744
Peripheral Units Control & Adapting Units	773,396,213	1,533,519,781	98.3	1,103,379,103
Telecommunications Equipment	243,772,020	545,688,513	124.0	234,824,894
Typewriters electric	69,553,262	102,957,119	48.0	92,691,089
Typewriters non-electric	67,289,742	67,710,352	0.625	54,131,754
Duplicating Machines	4,193,228	5,395,863	28.7	6,486,722
Office Machines	26,674,151	42,545,979	59.5	37,613,521

Source: Hong Kong Trade Statistics

Typewriters, duplicating machines and office machines may maintain more or less the same percentage of growth in 1985 as that in 1984.

In conclusion, we see that both the data processing devices (calculators and computers) and the telecommunications equipment account for the major demand in the Hong Kong office automation market. The growth of the microcomputer market is the most outstanding since its market demand has grown each year. A breakdown of import statistics of computer and telecommunications equipment are difficult to obtain, as such we can only cover a brief outlook of the computer and telecommunications market in Hong Kong.

4.1 The Computer Market

4.1.1 Development

The computer industry in Southeast Asia and particulary in Hong Kong has grown extraordinarily in the past few years. This tremendous increase covers all computer areas from basic hardware to the sophisticated software applications needed to create an advanced communications network.

The first mainframe in Hong Kong was an NCR 315 installed at China Light & Power Company Ltd. Then came the IBM, which together with NCR, had cornered most of the market with their mainframes in the early years though ICL and Sperry also successfully entered the market. These four mainframe manufacturers were well established in the area by

the mid 1970s.

The early installations of computer concentrated almost in the financial, government and operational sectors of the economy. The retail banking community led the way with computerised automation in an attempt to expand networks and bring in more customers. It was this sector of the community which first installed microcomputers for distributed processing during the latter part of the 1970s. By this time, the microcomputer revolution was well spread and so well saturated that the marketing approach was "User-friendly" and "One Per Desk".

4.1.2 The Present Situation

Hong Kong has the greatest computer growth and penetration within Southeast Asia. Table 4.4 shows the growth of the computer market in the number of computer installations, suppliers, software consultancy and computer bureaus. The number of computer suppliers has the greatest average percentage of growth (50.1%) and is followed by the software consultancy (41.1%). The computer suppliers increased most quickly during 1982 and scored a 75% rate of growth that year. However, it seems that their growth had slowed down in 1983 and 1984 with 49.7% and 20% growth rate respectively. The computer suppliers are still making money in the market and there are companies continuously entering the market which is not fully saturated yet.

The software consultancy firms have the largest growth during 1979 and have a 81% rate of growth. The number

Table 4.4

Growth of the Computer Market in Hong Kong

	Number of			
	Installations[a]	Suppliers	Software Consultancy	Computer Bureaus
1978	276	24	21	13
1979	461 (67.0%)*	36 (50.0%)	38 (81.0%)	18 (38.5%)
1980	534 (15.8%)	56 (55.6%)	49 (28.9%)	24 (33.3%)
1981	684 (28.1%)	84 (50.0%)	68 (38.8%)	28 (16.7%)
1982	918 (34.2%)	147 (75.0%)	108 (58.8%)	30 (7.14%)
1983	1005 (9.48%)	220 (49.7%)	137 (26.9%)	24(-20.0%)
1984	1209 (20.3%)	264 (20.0%)	154 (12.4%)	32 (33.3%)
Average % of Growth	29.1	50.1	41.1	18.2

Source: Asian Computer Directory, various issues

[a] An in-house installation which may comprise one or more computers.

* Number in bracket represents % of growth in number of firms in the year compared with the preceding year.

of software consultancy firms has increased each year though its rate of growth decreased in 1983 and 1984. More companies are expected to enter this market even though the computer consulting market is already already saturated. On the whole,

the computer industry both in Hong Kong and Southeast Asia is expected to continue to grow as Southeast Asia region has some of the world's most fastest growing economies.

Despite the fact that Hong Kong has the fastest computer market growth in the Southeast Asia region and is followed by Singapore, Hong Kong is 25-30 percent "less computerised" than Singapore (E. Barty, March 1985). Nevertheless, the proportion of large systems valued at US$ 1 million or more is higher in Hong Kong. According to the survey done by the International Data Corporation (IDC), about 9.1% of all systems in Hong Kong fall into the category of large computer, which is followed by medium computer at 15.3% and then small computer at 75.6% (Table 4.5). The values of each category has a similar trend but with large systems have the greatest value at 58.1%.

Table 4.5

Distribution of Computer Systems by Units and Values in Hong Kong (1984)

	Units (%)	Value (%)
Large	9.1	58.1
Medium	15.3	20.5
Small	75.6	21.4

Source: Asian Computer Monthly, March 1985, p.14.

It is also found that there is an overwhelming preference for outright purchase over leasing or renting, a preference which is most distinct among large systems in Hong Kong and 89% of which were brought outright (Table 4.6). This preference also applies to medium and small computers, both of which have the highest % of purchase in each category. Renting of computers is not particulary preferred in all three categories. However, leasing is preferred more than renting in medium and small computers though it is reversed in the case of large computers. The overall method of financing is in the order of purchase, lease and rent.

Table 4.6

Method of Financing Computer Systems in Hong Kong

	Purchase(%)	Lease(%)	Rent(%)
Large	89.0	3.2	7.8
Medium	75.3	20.7	4.0
Small	79.7	13.6	6.6
Overall	83.7	9.6	6.7

Source: Asian Computer Monthly, March 1985, p.15.

Regarding the market share in distribution by manufacturers, IBM is well in the lead in the computer industry. The survey done by IDC also indicated that IBM has

48% of large computers by value, 27% of medium systems and 13% of small systems (Table 4.7) and is the leading computer supplier in all three categories.

Table 4.7

Distribution of Computer Systems in Value in Hong Kong (1984)

	Large (%)	Medium (%)	Small (%)
IBM	48	27	13
NCR	18	4	11
Sperry	17	5	*
ICL	5	*	*
DEC	3	9	6
Wang	*	9	12
Data General	*	6	6
HP	*	4	3
Burroughs	*	*	9
Datapoint	*	*	6

Source: Asian Computer Monthly, March 1985, p.15.

* Less than 3%.

Table 4.7 also shows that both NCR and Sperry are competing for the second position among large computers with 18% and 17% respectively while ICL has 5% and DEC 3%. For medium computers, both DEC and Wang take the second position

after IBM and Wang accounts for the second major small systems being commonly used after IBM which is also being pushed hard in the small systems market by NCR (11%) and Burroughs (9%). Data General, Datapoint and DEC all have six percent of the market within this market segment.

IBM also dominates the microcomputer market for business uses. The remainder of the market is probably taken up by Apple, DEC, HP, and Wang. The 8-bit systems such as the Apple II and and many of the Z-80 based computers are good but rather slow. The Apple Mackintosh which is a 32-bit machine is very fast but it is fairly new and only a limited amount of software can be used. The 16-bit microcomputer seems to be the currrent standard and IBM is the leader since it launched its IBM PC in 1981. As its sales increased, many software houses started to develop software especially for this machine. Meanwhile, other manufacturers also follow the trend by producing IBM compatible computers to compete in the market.

For home computer market, most people prefer to buy imitated Apple II computer which still maintains its market share. However, the imitated IBM personal computer has gradually gained access to the home computer market.

The home computer market in Hong Kong grows in line with the international world market and the market is believed to have the potential for further expansion though it may slow down. The IDC survey forecasted that Hong Kong will have a growth in sales volume in 1985 and 1986 at 55% and 45% respectively which match the world trend. The home

computers are mainly used for games, programming and educational applications.

4.2 The Communications Market

4.2.1 Development

Several decades ago, the communications industry in Hong Kong would be defined as telegraph, wireless broadcasting and telephone. Nowadays, the facilities available for data processing are extremely diverse in terms of the method of transimission, the ways of presenting the information on receipt and the ways of feeding the information into the communications medium. New products have appeared in the market over the last few years demonstrating a variety of uses of the communications equipment. For example:-

- Telex and facsimile
- Private and public network
- Datel Message Service, and Teletext
- Electronic Mail
- Viewdata
- PABX and mobile telephone

The major changes in the communications industry have occured with the development of digital electronics in pace with the development of computers. The digital methods of transimission are favoured over analogue transimission for two principal economic reasons:-

(i) Digital wires have much greater information

carrying capacity than analogue type.

(ii) Digital signals are less distorted by noise than analogue signals.

As technological changes are found in the industry, there have also been changes in the "Scheme of Control" of the Government towards communications agencies. The international financial status of Hong Kong depends greatly on its telecommunication networks and services and the Hong Kong Government, as in most other countries, had granted a license before 1983 to the Hong Kong Telephone Company (HK TelCo) to provide all the necessary basic telecommunication network and services. However, the telephone deregulation in 1983 had brought great impact to the telecommunications industry.

Deregulation came about partly as Hong Kong followed the trends in other countries where deregulation of telecommunication services would enhance users' benefits. Pressure from suppliers might play a role in making it a reality.

Deregulation included two aspects. First, the restriction on network connection approval is lifted. People can purchase any telecommunication products which have been approved for network connection by HK TelCo. Meanwhile the Permission-to-Connect procedure for suppliers is substantially simplified. Second, customers are free to choose their own suppliers at competitive market rates rather than be monopolised by the HK TelCo regulations.

In anticipation of increased competition in the telecommunications market, the Hong Kong Telecom Association (HKTA) was formed in May 1983. Its objectives are:-

(i) To promote and protect free trading and servicing of the telecommunications industry.

(ii) To maintain a high standard of services among the members of the Association and to discourage any malpractices in the telecommunications industry.

(iii) To provide a legitimate and competent representation to the Government, the general public and the international telecommunications authorities.

(iv) To liaise with the Government regarding legislation on telecommunications after deregulation.

(v) To provide information on standards, specification of products, and rules on local and worldwide telecommunications.

The HKTA now has 13 members and they supply telephone systems mainly. A list of the 13 member companies is included in appendix 9.

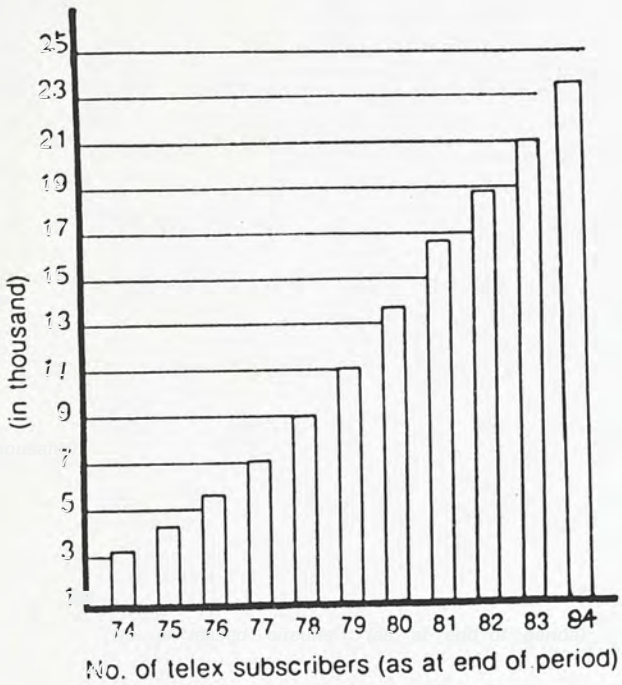
In August 1984, the Government also relaxed the rules on the supply of terminals to telex subscribers following the telephone deregulation. Previously, the C & W (HK) Ltd. had the exclusive right of supplying telex equipment but now other vendors are allowed to sell telex terminals in the market.

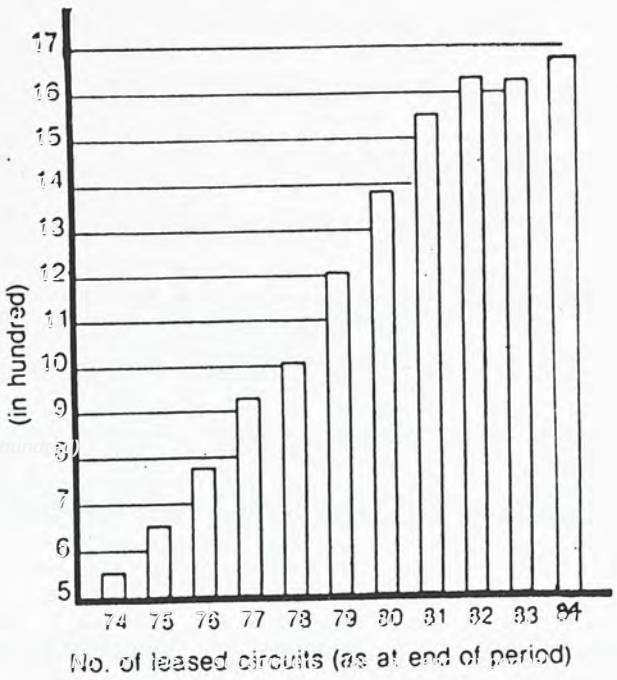
4.2.2 The Present Situation

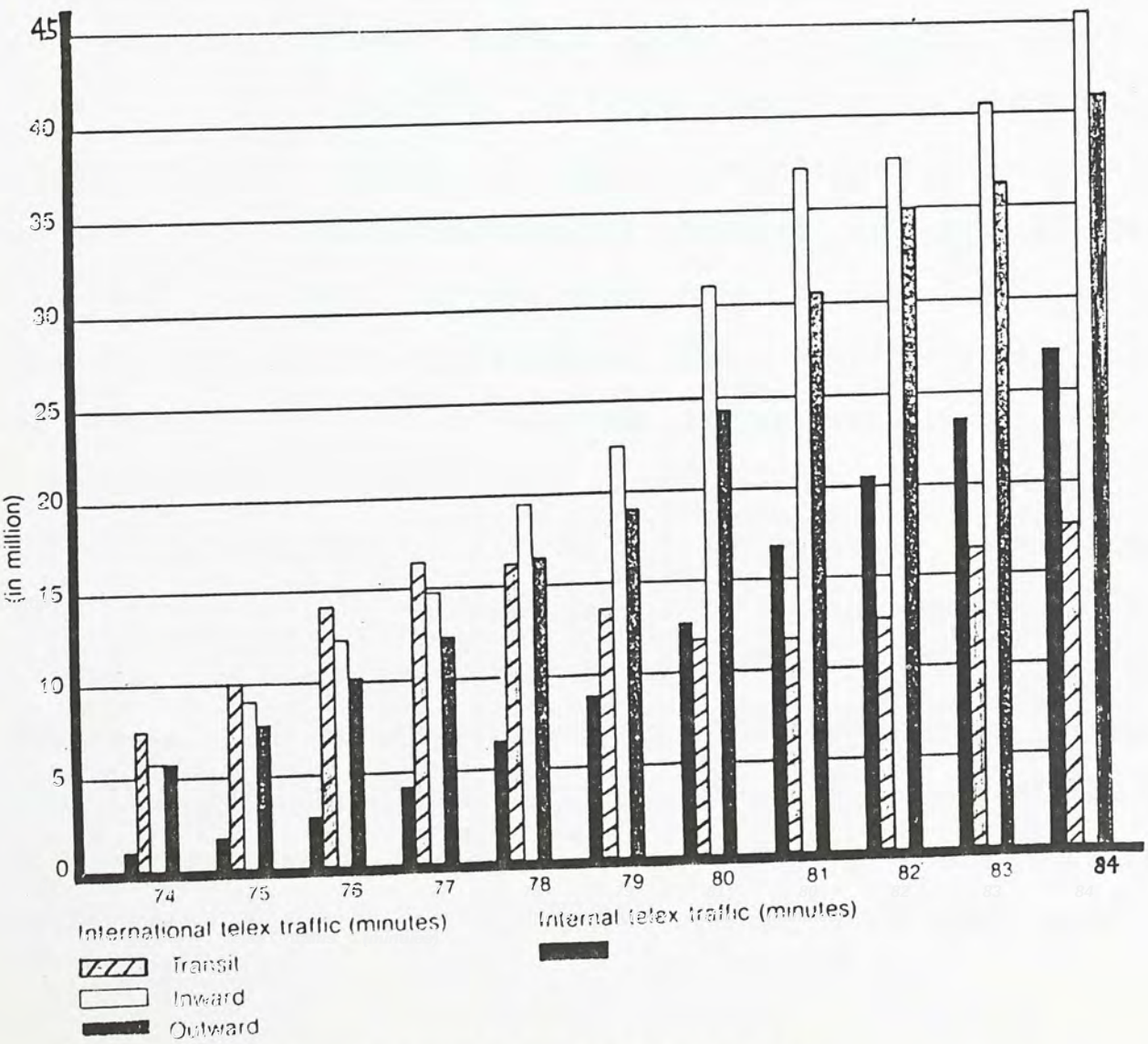
Hong Kong's growth as the world's third financial centre depends on the telecommunication services in the market. Since its first subscribers in 1958, the telex remains to be the most common and the most traditional means of text communication. It was introduced into Hong Kong by C & W (HK) Ltd. which is the key local supplier of telex. Fig. 4.1 shows the growth of telex both in the number of subscribers and the total duration consumed by the telex traffic in 1974-1984. The numer of telex subscribers increased from 3,265 in 1974 to 23,657 in 1984 and had an averge annual percentage growth rate of 22.21%. However, we notice that the annual rate of increase slowed down to about 14% in 1982-1984 while the rate reached 30% in 1975. Outward bound telex calls during the same period also jumped from 5,838,000 minutes to 41,160,000 minutes and inward calls from 5,837,000 minutes to 45,482,000 minutes. All these figures are conclusive proof that telex is an important communication link of the commercial industry in Hong Kong for the past decade.

The use of facsimile is fairly widespread after telex and for many businesses, it serves as a cost effective way to distribute documents. Facsimile is capable of sending any graphic message, giving immediate delivery over the telephone line and it works similar to a copying machine. However, a facsimile is restricted in use because it is only suitable for transmission of combined text and graphics. In

Fig.4.1 Telecommunications Statistics (1974-1984)







Source: Hong Kong Monthly Digest of Statistics

addition, different brands are not compatible with one another.

As the amount of traffic volumes increase between two points, it becomes cost justifiable to lease a line specifically for the transmission of telegraph, telex and facsimile messages. The private lines also ensure that the users will have no problem of an engaged signal. Hong Kong is no stranger to this service and the number of leased line has been growing for the last ten years and scored 1674 in units in 1984 (Fig. 4.1). The growth in 1984 was more than 200% from 1974.

From the private circuits, we see the development of the public network. In January 1985, the HK TelCo formally launched its Datapak service which is a public network. Datapak enables terminals, and host computers to communicate using telephone lines. It uses a technology called packet switching in which messages are conveyed as packets with addresses so that they are less likely to get lost during transmission. According to the HK TelCo, there were less than 10 companies signed on using the network when it was first introduced.

Although telex is most commonly used, it does not mean that it has no drawbacks in its applications. For example, it can only deliver brief messages and not lengthy documents. Its relatively slow speed of transmission and the fact that only upper case letters can be used also limit much of its application potential. The entries of new products which excel telex in these aspects would, therefore, pose a

direct threat to its subscription rate. In 1983, the HK TelCo launched its Datel Message Service (DMS) which is also known as Supertelex to challenge the telex services of C & W. The DMS system claims it can save the users up to 25% on the cost of 80% of telex messages. DMS operates through standard keyboard terminals, wordprocessors, personal computers and more than 30 types of computers are compatible with it.

In addition, the HK TelCo is planning to put out its teletext in 1986. Teletext is said to be costing less than telex on transmission charges and offering benefits like error correction and protocol conversion. The HK TelCo hopes that Teletext will replace telex in future and in fact, some companies are already planning to install Datapak for teletext application alone.

In response to the challenge of the DMS, C & W (HK) Ltd. launched an electronic mailbox system called Dialcom in September, 1983 into the market. C & W claims that the system is faster and cheaper than telex. Besides the electronic mailbox, Dialcom also include other characteristics like electronic calender, form processing, phone message and electronic conferencing etc. Dialcom can be connected to more than 50 varieties of standard terminals, personal computers and wordprocessors. Recently, IP Sharp also offered an electronic mail package called Mailbox. All these new systems have contributed to the intense competition of the telex market.

Another recent invention is the Viewdata which is

a videotex system connecting a microcomputer or a TV set via the telephone line. The system is an information provider of such facilities like stock, share and commodity prices, news and airline timetables. Currently, there are more than 700 subscribers wuth Viewdata being used at some 6000 locations in Hong Kong.

Telephone deregulation in 1983 released many services from restriction such as PABX, premium telephones and attachments, radio paging, concentrators, data products and keyline systems. As a result of this deregulation, we can see the market has evolved into the following states:-

(i) More suppliers are now in the market than before and they offer a wider range of products to the customers. However, the HK TelCo still dominates the market as the majority of the public is unaware of the deregulation. The HKTA is stricking hard to educate the public about the deregulation and the variety of products available to them.

(ii) As a result of the competition in the market, the quality of services and equipment has also improved.

(iii) Telephones are becoming more like a consumer product and more people will prefer feature phones to simple phones, purchase to rental and plug-on sockets than wirings.

(iv) Customers are enjoying more favourable prices than before. Table 4.8 shows the change in

price of installation and maintenance of a 200-line PABX before and after deregulation. We see that there is a favourable saving both in time and charges.

TABLE 4.8

Installation and Maintenance Charge Before and After Deregulation of a 200-Line PABX

	Av. Vendor After Deregulation	By Local Telco Before Deregulation	Saving
Installation and Commissioning Charge	$25,000	$60,000	$35,000
Installation and Commissioning Time	10 days	30 days	20 days
Telephone Set (Standard Type)	$250/Set Outright Sale	$10/Month Rental	
Monthly Maintenance Charge/Extension	$16	$22	$6

Source: Office Equipment, No.6, 1985

Above figures are approximate figures only.

In order to maintain its leading position in the market, the HK TelCo registered its marketing arm, the Communication Services Ltd. (CSL) which became operational on 1st January 1983 in anticipation of the deregulation. Despite active competition in the telecommunications market, CSL is able to maintain its share in the industry. Moreover, The HK

TelCo still retains the right for approving telecommunications equipment while many suppliers feel that the approval procedure should be handled by an independent government body.

TABLE 4.9

Types of Mobile Telephone Available in Hong Kong

	Chinatel		CSL		Hutchison			
Supplier	Comvik		NEC		Motorola			
Model	CT-6868M	CT-6868P	GC2000A	GC2000P	8000X	6000X	4000	2000X
Price / Unit*	$7,188	$8,988	$7,250	$10,500	$47,880	$24,920	$13,480	$10,250
Minute Charge	$1.00	$1.00	$1.00	$1.00	$2.00	$2.00	$2.00	$2.00
Monthly Rental	$300	$300	$300	$300	Flexible Pricing			

* Chinatel and CSL prices do not include installation.

After the deregulation in 1983, the HK TelCo further lost the exclusive right in 1984 for selling mobile telephones through CSL. The mobile telephone market has become more intense with the entries of two more competitors, viz. Chinatel and Hutchison Radio Telephone.

CSL first introduced mobile phones in Hong Kong in 1984 and dominated the market for almost a year before Hutchsion and Chinatel began to operate. Both competitors

were granted licenses in April 1984, but only started selling in 1985. A price war was instantly initated when the last competitor, Hutchison, entered the market. The war is still going on. Table 4.9 shows the types of mobile telephone available from each company.

4.3 Future Trend And Opportunities Of The Market

After a brief review of the computer and communications markets, we see that the information technology business in Hong Kong still has opportunities for further development. The office automation concept is so prevailing in Hong Kong that it is a common topic in the editorial section of most business magazines. Improved efficiency, better information control and cost reduction are only some of the benefits which modern office equipment can provide to the users. With the advent of the microchip, modern technology has made the cost of manufacturing information equipment cheaper, as such more companies can afford the price of office automation. Moreover, when fast decision-making and efficient communication are required as business volume increases, the need for office automation becomes prominent. Hong Kong has long been known as an important user-oriented market for information equipment, and being the world's third largest financial centre and an important metropolitan business area, it has stimulated the high level of growth of the office automation business.

For the computer industry, many corporations have installed large integrated systems produced by the leading

brandnames. Many of them are using microcomputers as intelligent terminals to their mini and mainframe systems. The companies are computerising in areas like accounting, invoicing and bugeting etc. The demand for business microcomputer will grow steadily especially when its price becomes more affordable. It is expected that the microcomputer peripheral market will grow almost 300% worldwide by 1994. Meanwhile, as the computer becomes more personal, the software also evolves towards more user-friendly. The highly competitive environment of the microcomputer business in Hong Kong and worldwide makes the manufacturers produce the new generation software.

The new generation software which is typified by the "mouse and window" will soon become the standard. It is forecasted that this software will reach a sales volume of US$ 6.5 billion worldwide by 1988. Hence, we expect that the trend for this market segment will be towards IBM compatible and user-friendly. Major vendors who will be active in this area will still be IBM, Apple and Wang. On the other hand, IBM will still be the market leader in sales turnover in computer by 1990s. DEC and Wang will take the second and third places and will be followed by HP and NCR. The penetration of more computer suppliers in the market also helps the growth of the software consultancy business. This industry still has some opportunities in the market as many companies lack the expertise for setting up their own computer systems. However, table 4.4 shows that its growth

has slowed down as more companies have their own staff for EDP planning.

Developments in the telecommunications industry are following a similar trend as that of the computer. Modern technology makes digital communications the order of the future and voice signals will be transmitted as impluses of light down an optical fibre cable rather than by varying amplitude of magnetic current down a coaxial cable. This method of transmission is suitable for computerisation since computers and many other forms of office automation equipment communicate digitally using binary code. It seems that Hong Kong will take great pains to digitise its communication systems by the turn of the century.

PC also opens up a new world of communication by linking up with the telephone line with the modem. Networking of computers, either over the telephone line or through cables within an office, is now becoming quite common in Hong Kong. This system allows computer to communicate and swap data. In the future, more PC users will be able to use packet switching over the telephone lines to access host computers throughout the world. Meanwhile, local area networks (LANs) are not particulary popular in Hong Kong and it is forecasted that by 1994, LANs will become obsolete. However, telex, facsimile, and electronic mail will still be among the important communication links in Hong Kong.

As a company grows in size, the demand for different kinds of terminals to finish various tasks will increase. This will pose a problem to the office arrangement

and efficiency as more equipment is introduced. Developments have been made towards integration of voice, telex, facsimile and data services such that all tasks can be accomplished on a multifunction workstation. For example, a PC can be used for data processing and sending telex messages as well. Much work have to be done before a truly general-purpose workstation can appear and the major problems lie in the integration of analogue and digital transmission.

Information technology is a fast changing business and much research and development on new products have to be made by each company so as to maintain its market share. From the number of office automation companies and the variety of products available, we can see how fierce the competition is and how the market leaders stay at the forefront by promoting their advanced technology. As the economy of China becomes more open, there is a growing need of office and telecommunications equipment for business transaction inside China. Many office automation companies are already penetrating the China market and trade fairs of office equipment in the mainland are frequently organised. In conclusion, there are still opportunitites for doing business in Hong Kong provided one has the advanced technology, a dedicated sales force and a well co-ordinated after-sales service team. All of these are needed in order to stay in the market.

CHAPTER V

CUSTOMER PROFILE

The customer profile is constructed on information retrieved from the questionnaire survey which was directed to the tenants of the Exchange Square as only these companies have been exposed to the Shared Resources Concept. A number of insights for our research objectives were gained from our questionnaire so that appropriate actions can be taken in the marketing plan.

5.1 Results Summary

1. A total of 97 questionnaire were sent to the existing tenants of Exchange Square, out of which 28 were completed and returned. This resulted in a 29% return rate.

2. The main reasons for the companies sampled to move into the building were for building location and convenience; for prestige and for the management style of the building. Surprisingly only four of the respondents expressed that their reason was for the shared resources system of the building.

3. Most of the companies learned of the integrated telecommunications and data system in the building from

advertisements (by Hong Kong Land) in the newspaper and magazines before moving into the building. The other main source of information was the real estate agent.

4. The main criteria used for selecting O.A. / communications equipments are the quality of the equipment and services; the price of the equipment and the "suppliers'" reputation.

5. From the replies of the banking/financial companies, it is found that 31% of them are users. They are mostly medium sized offices (number of employee range from 11-30) but with one office having 200 employees.

For the non-users, they range from small to large size offices (4 to 200 employees). Their main reasons for not using the Shared Resources (SR) are:-

1) Their companies have their own set of OA equipment/system and

2) security concern.

6. 60% of the respondents in the trading industry are SR users. These are small to medium sized offices with number of employee less than 20. Some of their OA equipments are shared while others are owned by individuals in the office.

For the non-users, they are medium-sized offices (number of employee around 11-20) . Their main reason for not using SR is that their companies have their own communication equipment and supporting staff.

7. Out of the 3 professional offices, all 3 utilize the SR. They are small to medium sized offices and

some of their OA equipment are shared while some are owned by individuals.

8. For other miscellaneous offices (e.g. advertising company, government department etc.) the percentage of SR user is 17%.

The non-users are mostly small offices with 2-10 employees. They hold the same reasons as that of the banking/finance group for not using SR. They also consider the charges for SR are too high.

9. The major complaints of the SR users is the quality of service not up to requirement.

10. The existing SR non-users expressed that their considerations for future utilization of SR are:-

1) Improvement in security.

2) Fulfilling companies' requirments.

3) Lower charges.

11. All of the respondents possess certain type of OA/communications equipment. The common ones are telephone extensions, telex terminals, typewriter, photocopier, facsimile, commputer PC.

12. The most commonly used SR service/equipment are PABX, telephone extensions and telex terminal.

13. The decision-maker and planner for OA/telecommunications systems are the senior management people, e.g. managing director.

A detail analysis of the results by industry is presented in Table 5.1 and the integrated results of the

Table 5.1
QUESTIONNAIRE RESULTS : Analysis by industry

Questions*	Industry									
	Banking/Finance		Trading		Professional		Communications		Others	
	User	Non-user	User	Non-user	User	Non-user	User	Non-user	User	Non-user
1. Number of employee?										
1- 10	0	3	2	0	2	0	1	0	0	4
11- 20	2	2	1	2	1	0	0	0	0	0
21- 30	1	2	0	0	0	0	0	0	0	0
51-100	0	1	0	0	0	0	0	0	1	1
101-200	1	1	0	0	0	0	0	0	0	0
2. Size of office(m^2)?										
<300	2	4	3	2	1	0	0	0	0	4
301-800	1	4	0	0	1	0	0	0	0	0
1201-4000	0	1	0	0	1	0	1	0	1	1
>300,000	1	0	0	0	0	0	0	0	0	0
3. Office automation equipment to employee ratio?										
1 : SEVERAL	1	2	1	0	0	0	0	0	1	2
1 : 1	2	2	0	0	2	0	1	0	0	2
1 : 1 or SEVERAL	1	3	2	0	1	0	0	0	0	1
4. Reasons for moving into Exchange Square? For...										
-building location	3	7	2	0	3	0	1	0	0	3
-prestige	3	3	3	2	0	0	1	0	0	3
-management style	1	1	1	0	2	0	0	0	0	3
-the SRS	1	0	0	0	1	0	1	0	0	1
-others	1	3	0	1	0	0	0	0	1	2
5. Reasons for not using SR?										
-has own communications equipment & support staff	-	5	-	1	-	0	-	0	-	4
-security reasons	-	4	-	0	-	0	-	0	-	2
-SR charges too high	-	2	-	0	-	0	-	0	-	2
-SR do not fulfil co. reqt.	-	1	-	0	-	0	-	0	-	1
-others	-	0	-	1	-	0	-	0	-	0
General Statistics :										
Total responds :	13		5		3		1		6	
SR User :	4 (31%)		3(60%)		3(100%)		1		1(17%)	
SR Non-user :	9 (69%)		2(40%)		0(0%)		0		5(83%)	

* Selected questions from the questionnaire

questionnaire is shown in appendix 10.

5.2 Conclusions on Target Customer Segment, Perception on SRC and Criteria for OA / Telecommunications Installation

Before launching the questionnarie survey, we hypothesized that the target market for this Shared Resources Concept (SRC) would be the small to medium-sized offices. This was because of the unique advantages of SRC. The centralised system means tenants can save the initial capital cost of providing their own equipment and software, and consequently need never own obsolete equipment. Rather, tenants will have access to the most modern hardware as SRC also mean substantial savings in rent and air-conditioning costs for space needed to house mainframe equipment.

However, the results of the questionnaire survey showed that the size of the offices was not an important characteristic of the SR users. The SR users and non-users both may have 2 to 200 employees or 300 square metre to 300,000 square metre office space. It also appears that SR users may engage in any industry viz. banking/finance, trading, professional, communications . Hence, we would conclude that SR users/ non-users do not have any size-specific or industry-specific. The target market should be those companies which want to move to a new office with anticipated growth/expansion in OA requirements and telecommunications needs. These companies are in need of advanced, high quality OA/telecommunications services to cope

with their corporate growth.

The tenants' primary criteria used in selecting office automation / telecommunications services and equipment are:-

1) The quality of the services and equipment

2) Price

3) The suppliers' reputation

Their general perception of SRC is that it may have a security problem; it is expensive and it may not meet their companies' specific requirements. Hence, it seems that the future development of the Shared Resources is somewhat limited if the Concept is not actively and effectively marketed.

CHAPTER VI

MARKET SEGMENTATION

The Shared Resources Concept adopts an approach in which tenants of a commercial building can use the most advanced information technology without a great capital outlay or fear of obsolete equipment. The Concept is based on the idea that many companies understand the importance of office automation and they realize that the demand for office automation will increase with the requirement for efficient information handling. Therefore, the companies would probably like their offices to be located in a building which can provide facilities for flexible expansion of office automation. If a building can provide these flexible facilities which are further backed up with the availability of most advanced information technology plus an "in-house" consultant and maintenance services round the clock, it will be very attractive to companies, especially those with anticipated growth in office automation since their need is well catered and planned by the building developer.

The Shared Resources Concept makes the office building more "intelligent" than others due to the built-in integrated telecommunications and data network which support the services of the Shared Resources. Developers of the "intelligent" building in overseas think that they will gain

a competitive edge in a glutted property market. Similarly, Exchange Square which is the "intelligent" building in Asia was built in a period when the local office market supply is already saturated and the developer employed the Shared Resources Concept to attract more people to move in. Meanwhile, there is no similar intelligent building in Hong Kong.

6.1 SRC: Its Real Competitor

From the chapter on the market profile of the information technology business in Hong Kong, we see from the growth of import that there is a great demand for office automation equipment. From our questionnaire analysis, we found that many companies in Exchange Square do not realize the benefits of this Concept and they still prefer to use equipment and services provided directly by other office automation suppliers. The latter pose a problem to the promotion of the Shared Resources since tenants can use services furnished by outside suppliers instead of from the building developer. Hence, the competitors of SRC are those office automation suppliers.

The marketing plan has, therefore, to define clearly the target market segment. Part of the plan is to launch a promotional campaign focusing on this Concept and directed to our target customer so as to increase the usage of the Shared Resources both by the existing tenants and future potential tenants of the "intelligent" building.

6.2 Property Profile: Office Space

The Shared Resources Concept is expected to make the building more competitive especially when the demand for office space in the property market is low. It is therefore, necessary to have a review of the property market to see whether or not any further potential for this kind of "intelligent" building exists.

Table 6.1 shows the overall vacancy trend of offices in Hong Kong for the period 1980-1984. It is obvious from column (1) that there was an increasing percentage of vacant offices which were completed in the year surveyed. On the other hand, the percentage of vacant offices for building completed previously also increased in column (2) with the percentage reaching 12.9% in 1983 and falling off slightly to 10.6% in 1984. It seems that most recently completed buildings do not have their offices being rented out significantly and they are slowly occupied. This can be seen from column (3) which shows the overall vacancy percentage increasing every year. The percentage in 1983 is more than twice that of the 1980. The percentage fell to 13.8% in 1984. 1982 and 1983 were particulary "bad years" for the property market due to the high level of rent. In addition, the uncertainty of the political future of Hong Kong at that time made the demand for office space unfavourable to building developers.

TABLE 6.1

Offices in Hong Kong-Overall Vacancy Trends

	(1) In Buildings Completed during the Year		(2) In All Other Buildings		(3) Overall Vacancy	
	Total Floor Space (m^2)	% Vacant	Total Floor Space (m^2)	% Vacant	Amount Vacant (m^2)	% of Total Stock
1980	296,000	58.9	2,137,000	1.3	202,900	8.3
1981	319,300	55.4	2,416,500	5.2	301,900	11.0
1982	546,300	68.6	2,713,600	7.3	573,300	17.6
1983	590,700	63.1	3,259,800	12.9	792,900	20.6
1984	219,300	70.7	3,848,300	10.6	561,300	13.8

Source: Property Review 1985, Rating and Valuation Dept.

TABLE 6.2

Offices in Hong Kong-Supply and (Forecast) (m^2)

Region	1980	1981	1982	1983	1984	(1985)	(1986)
Hong Kong	262,400	206,300	247,600	345,700	137,800	321,500	88,000
Kowloon	32,200	107,900	275,200	172,000	69,000	8,400	10,400
New Kln.	400	1,700	7,700	9,800	2,500	700	3,900
N.T.	1,700	3,400	15,800	63,200	10,000	1,100	300
Overall	296,700	319,300	546,300	590,700	219,300	331,700	102,600

Source: Property Review 1985, Rating and Valuation Dept.

The effect of the "bad years" can be felt from Table 6.2 which gives the supply and forecast for office space in the period 1980-1986. The average supply of offices in 1980-1984 is 394,000 square meters when the market is already over-supplied. 1985 was predicted to maintain at nearly the average supply at 331,700 square meters. The forecasted supply in 1986 droped by 70% to 102,600 square meters. The latter figure simply reflects that many construction projects were shelved during 1982-1983. Supply decreases consequently as a building would normally need three years between ground breaking and completion.

Many offices are still vacant. However, Hong Kong is recovering from the long-drawn period of over-supply (HK Property Review 1985, SCMP). As the future of Hong Kong becomes more clear and the China market is more open to foreigners, more people are coming in to set up their offices in Hong Kong which is a doorstep to China. Moreover, the relatively low property price levels are more appealing when compared with such levels during the peak period of 1981 and 1982. In fact, our questionnaire analysis reveals to us that more than half of the respondents are new to Hong Kong. Hence, we expect that the vacant offices will be slowly rented out. On the other hand, some local developers have already started construction projects to match the expected increasing demand. Therefore, we believe that there is still much demand and potential for another intelligent building in Hong Kong. The value-added approach of the Shared Resources

Concept in the intelligent building will increase its competitive edge in the property market both when it is saturated and when the demand is great. In fact, it was learned from our interviews and the newspaper that Hong Kong is going to have two more intelligent buildings, both of which are to be developed by prominent banks in Hong Kong.

6.3 The Target Segment

From the interviews conducted and questionnaire analysis, we find that many people still do not understand the benefits of this Concept. Only about 65% of the existing tenants in the Exchange Square which has 70% let when this report is writing have plugged into one or more services offered by the building's electronic services. We feel that a promotional programme is needed to create an awareness to our potential tenants and to the existing tenants in the Exchange Square. Besides, we must make the local principal developers understand the advantages of this Concept brought to the sale of their office buildings.

The questionnaire results indicate that neither the office size nor the number of employees has any relationship with the usage of Shared Resources as suggested by Stuart Gannes who thought the Shared Resources Concept has a particular appeal for small and medium sized firms (Fortune, Dec. 1984) because of economies of scale. We think any company which wants to move to a new office because of expiration of their present contracts, office expansion and so on will be our likely tenants of the intelligent building.

The target segment for our promotional programme will be divided into two parts as follows:-

(1) The end-users of the Shared Resources are the tenants and they are those companies which want to move to a new office for expansion or growth with anticipation of increasing demand for office automation.

(2) The principal developers in Hong Kong.

The marketing plan will then be directed towards the companies in segment one and two via different media to convey the Concept.

CHAPTER VII

THE MARKETING PLAN

It is mentioned in the previous chapter that only 65% of the tenants in the Exchange Square which is now 70% occupied are using the services of the Shared Resources. It is felt that the renting of Shared Resources can be increased further and that there is a further marketing potential of SRC to be used in another intelligent building. From the questionnaire results, many people still do not understand the benefits of SRC. Therefore, a marketing plan is proposed for the SRC so as to increase its usage by the tenants who are the end-users of the Shared Resources. The marketing plan also direct towards the local principal developers to explain to them that the SRC can increase their competitive edge within the Hong Kong property market.

Prior to proceeding with the marketing plan, the following assumptions are made:-

(i) Companies in Hong Kong have a growing demand for modern office equipment used for information handling. They also understand the importance of office automation which is a key to the success of modern business.

(ii) Companies in Hong Kong would like their offices to allow for flexible installations of office equipment.

(iii) The location and management of the building are good and attractive to our potential tenants.

The marketing objectives of the plan are:-

(1) To get 80% of the total occupants in the Shared Resources building to use the services.

(2) To persuade 30% of the principal developers in Hong Kong to install the Shared Resources in their future commercial buildings.

After defining our overall marketing objectives, we then design our marketing plan by setting our product, sales force and promotion objectives and the ways to implement them.

7.1 Product Objective

To maintain a high standard of quality of the Concept by providing 24 hour consultancy and on-site engineering and maintenance services to the existing and potential tenants such that the total number of complaints received from each user in a month is not more than twice the number of services he is using.

Rationale

The SRC makes the building an electronic wonderland in which tenants are provided with the most advanced information technology equipment so that they can select those services which fulfill their requirements. Besides, these services are backed up with full and efficient on-site consultancy and maintenance services. In chapter 4,

we saw that the information technology business is a highly competitive one. Besides advanced products and a dedicated sales force, a good maintenance and after-sales service team is needed for a company to stay in the market. The questionnaire results also indicated to us that users of the SRC rely on the "in-house" consultant when they have problems. Thus emphasizing a 24-hour on-site consultancy and maintenance service is very important. Advanced technology is only an additional product feature. This shows that the building developer is sincere and ready to cater the needs of office automation of the tenants. We believe the messages that "intelligent building plans ahead, and its in-house consultants have already looked to tenants' office automation needs before they move in" and " the intelligent building's round-the-clock trouble-shooting team guarantees top maintenance and smooth working of the tenenats' equipments" will have more appeal for an efficiency conscious company.

Strategy Statements

(1) To maintain a strong liaison tie between the existing and future users of the SRC and the consulting engineering service team.

(2) To upgrade the product knowledge of the consulting engineer service team.

Fig. 7.1

A Sample of the 'Quality Survey' Questionnaire

The Intelligent Building --- We Plan Ahead.

Direction: Please fill in the appropriate boxes and return the form to the Building Management Office.

1. Your company's name: _____

2. Your name: _____ Position: _____

3. Which of the following services that your company is using?

1. ☐ PABX	11. ☐ telex terminal
2. ☐ Viewdata	12. ☐ telegraph modem
3. ☐ Dialcom	13. ☐ facsimile
4. ☐ Fonemail	14. ☐ photocopier
5. ☐ telephone equipment	15. ☐ computer data services
6. ☐ data terminal	16. ☐ wordprocessor
7. ☐ printer	17. ☐ conference room service
8. ☐ operator answering	18. ☐ courier service
9. ☐ secretarial service	19. ☐ binding service
10. ☐ central dictation system	

4. Please list those services above which cause trouble in application by writing down their numbers and matching them with the types of trouble below ? (Please specify the types of trouble if the option is not available.)

   a. Equipment too complicated to handle.
   b. Frequent breakdown
   c. Insufficient maintenance
   d. Quality not up to standard
   e. The response and processing speed of the equipment is too slow.
   f. Lines for transmission of signals are always engaged.
   g. No problem at all.

Services	Types of Trouble
_____	_____
_____	_____
_____	_____

5. Which service(s) need immediate improvement ?

   _____

6. Please comment on our consultancy and maintenance service team ?

   _____

--- Thank You ---

Actions

(1) For strategy (1), we have decided to tighten the present and future communication link by distributing a one-page 'Quality Survey' questionnaire to the end-users at the end of each month to ask for their opinions towards the services provided. The questionnaire must be so designed that the respondents have little trouble to fill in the form and they will be required to tick in the appropriate answer boxes for most of the questions. A sample of the 'Quality Survey' suggested is shown in Fig. 7.1.

Question 3 to 5 can help the service team to evaluate how best they have performed on the product objective since our aim is to maintain a good quality image. Question 4 futher helps us to obtain a monthly status report on the types of trouble associated with the services. Some users may not bother to lodge a complaint if they encounter some trivial problems and they do so only when a major trouble appears. The objective of this questionnaire is to build up a reputation that the SRC service team pays attention to the smallest details and the SRC plans ahead before major trouble appears by collecting constant information feedback from the users about the service performance. The users may thus feel more confident in using the Shared Resources since a 'Quality Survey' report in this way guarantees that the SRC service team always act before any complaints are received. This 'Quality Survey' questionnaire must, of course, be backed up with regular

maintenance checks.

(2) Courses on the marketing skill of the service staff have to be arranged for the service staff to establish a strong liasion tie with the clients. A 'Staff-User Relationship Programme' is suggested in which a maintenance service staff is assigned to every three floors and he is responsible for the regular check-up of equipment in the allocated floors. The objective is to personalize the intelligent building such that users can refer their problems to the assigned service floor representatives who have to make use the marketing skills to establish a good relationship with the clients.

(3) For strategy (2), the product knowledge of the SRC staff has to be upgraded continuously since the SRC guarantees the users that the most advanced information technology is available to them. It is necessary, hence, that the engineers and the maintenance staff do not lag behind with their product knowledge. A special post called Engineer Training Officer has to be created in the team. The officer is responsible for organising courses on the product features for new recruits and co-ordinating and conducting seminars for the service staff whenever a new service is installed in the Shared Resources so that they are familiar with the products all the time.

Controlling Measures

The performance of the equipment and the service team can be assessed from the number of complaint reports received and the results from the 'Quality Survey' questionnaire. If the number of complaints lodged from a user company in a month is more than twice the number of services the company is using, a senior maintenance engineer has to be sent to examine the cause of defects of the equipment. The engineer is expected to follow the guidelines below:-

(i) Check whether the maintenance staff (floor representative) has followed the maintenance procedures. If not, advice the staff to follow the procedures and provide training when necessary.

(ii) Check whether the equipment used is compatible with the specification provided by the manufacturer. If not, replace the equipment with the correct specification.

(iii) Check whether the steps of setting up the equipment is correct. If not, renew the set-up of the equipment.

(iv) Ask the users whether they have used the equipment according to the instructions given by the maintenance staff. If not, provide training to the users.

Meanwhile, the performance of the floor representative can be kept tracked from the information (Q.6) collected from the 'Quality Survey' questionnaire so that

objective appraisal can be made.

7.2 Sales Force Objectives

(1) To achieve 80% of total occupants in the building using the services.

(2) To encourage each user to employ at least 50% of the different kinds of services available to them.

Rationale

As the SRC is to make the commercial building more competitive in the property market, we definitely want the majority of the tenants to use the services. Since our questionnaire results indicate that most of the tenants do not clearly know about the Concept, it is obvious that the usage rate of the SRC is not very high and in fact, only 65% of the existing tenants in the Exchange Square use the service. We consider 80% of total occupants in each intelligent building would be a reasonable target for the salesmen.

Meanwhile, we have learned from the chapter on product features that there are various kinds of services available to the tenants. We expect that each user of the Shared Resources to use at least 50% of the services since if each user uses only some of them, it will not be economical to put out such a variety of services. Besides, the amount of revenues collected will thus increase if objectives (1) and (2) are achieved.

Strategy Statement

To make the tenants realize the benefits of SRC and switch to use the Shared Resources.

Actions

The sales force should take an active selling approach by arranging demonstrations to those tenants who are going to move into the building and to those exisiting tenants who are not using the Shared Resources. The sales force should show to the non-users and potential users the following benefits of the SRC:-

(1) Better office arrangement since a multifunction workstation can replace many redundant equipments.

(2) Better office automation planning as it has already been taken care by the building developer.

(3) Most advanced information technology is available from the Shared Resources.

(4) A 24 hour consulting and maintenance service team is always stand-by.

This active selling approach is better than the passive selling approach which depends on walk-in customers. Moreover, if some customers decline to use the Shared Resources because they already have the equipment provided by other suppliers, the sales force could suggest to their potential clients that they can trade-in their equipments with those supplied by the building developer.

Controlling Measures

If the sales force objectives (1) and (2) are not attained, the following possible causes of decline in sales have to be checked and corrected:-

(i) Check the salesmen's selling approach. If inappropriate methods are used, provide correct training to the salesmen.

(ii) Check the office automation requirements of the occupants to see whether they are met by the specifications of the equipments supplied. If not, replace the equipments with the right features.

(iii) Check whether assumption (1) is correct. If the companies have no particular need for office automation and do not understand its benefits, try to convince them the better efficiency and control brought to them by office automation. Meanwhile, readjust the target level for the sales force objectives by conducting a more in-depth market research.

7.3 Promotion Objectives

(1) To promote the benefits and values of SRC to all the principal developers of Hong Kong so that 30% of them will employ the SRC.

(2) To educate 80% potential tenants of the intelligent buildings about the SRC benefits to them by the end of 1987.

Rationale

The case study of the Exchange Square suggests that CWS, the systems company, has been too passive throughout the whole launching of the intelligent building. All the marketing activities of the building were conducted by the developer and the real-estate agent. As a result, the potential tenants or even the existing tenants do not understand and appreciate the benefits of SRC to them. In fact, many tenants have misconceptions about the Shared Resources (SR) as indicated in the questionnaire survey. The SR has become a mere "decoration" of the building. And even worse, this "decoration" is only a minor part of the whole project.

To help achieve our marketing objectives, an intensive promotional campaign is designed. Our target audience for this campaign includes two groups:-

(1) All principal developers in HongKong.

(2) The potential and existing tenants of the intelligent buildings (utilising our SR).Since all our centralised telecommunications services and products are provided to the tenants on a lease basis, we have to direct more attention to them in order to secure their subscriptions.

Strategy Statements

(1) To introduce the SRC to all principal developers of Hong Kong through conference, personal calls

and exhibition.

(2) To persuade the Hong Kong principal developers that SRC can increase their competitiveness in the Hong Kong property market through tailor-made presentations.

(3) To educate the potential and existing tenants about the benefits of SRC to them through advertisements, press release, direct mails and telemarketing.

Actions

(1) A one-day conference will be held in July 1986 at the Furama Hotel. The theme of the conference is "SHARED RESOURCES CONCEPT ---- THE WAVE OF THE FUTURE" (Sample advertisement in Appendix 11) . Tentative guest speakers include Mr. James Hayes who is a Principal Consultant with Jardine Logica in Hong Kong. He specialises in communications and information technology. Prior to coming to Hong Kong in 1984, he has worked for the Logica Company in the U.K. for 12 years and has carried out a number of consultancy assignments. His principal interest is in the development of telecommunications and computing as an integrated utility and the development of new services and functions. The other speaker will be Mr. William Moore who is currently in charge of all data processing activities for Chase Manhattan Bank, N.A. in Hong Kong (Additional speakers will be invited to come).

All principal developers in Hong Kong (Appendix 12) will be invited to attend. The main objectives of the conference are as follows:-

1. to introduce SRC to the developers
2. to educate the developers of the costs and benefits of using SR in their new buildings
3. to inform them of the overseas SRC development
4. to handle general queries and comments on SRC application in Hong Kong.
5. to pave the way for future personal calls.

(2) Personal calls will be conducted right after the one-day conference followed up by tailor-made presentation. The presentation includes a video-tape introducing the technical aspects of SRC : the costs involved, the estimated revenue for the developers. The main objective is to persuade the principal developers that the SRC will increase their competitiveness in the Hong Kong property market. The sales force for each presentation will include one marketing executive and an engineer to ensure that all queries and objections can be handled satisfactorily on the spot.

(3) A five-day exhibition will be held in August 1986 at two venues, namely the Exchange Square and the City Hall. The target audience are the developers and the general public (which of course will include the potential tenants customers). The main theme of the exhibition is the same as that of the conference. This exhibition aims to:-

(a) introduce the basic concept of SRC to the general public,

(b) illustrate the SRC by exhibiting operational

examples of other buildings around the world using this concept (the examples of building are listed in Chapter I). Mainly attractive photos plus short descriptions will be used in the exhibition, and

(c) higlight the benefits of using SRC to end-users.

(4) Press release and articles reinforcing the exhibition's main theme will be planned. The releases will also include the information about the "smart" building trend around the world.The main media used are:-

(a) South Morning China Post

(b) Euromoney

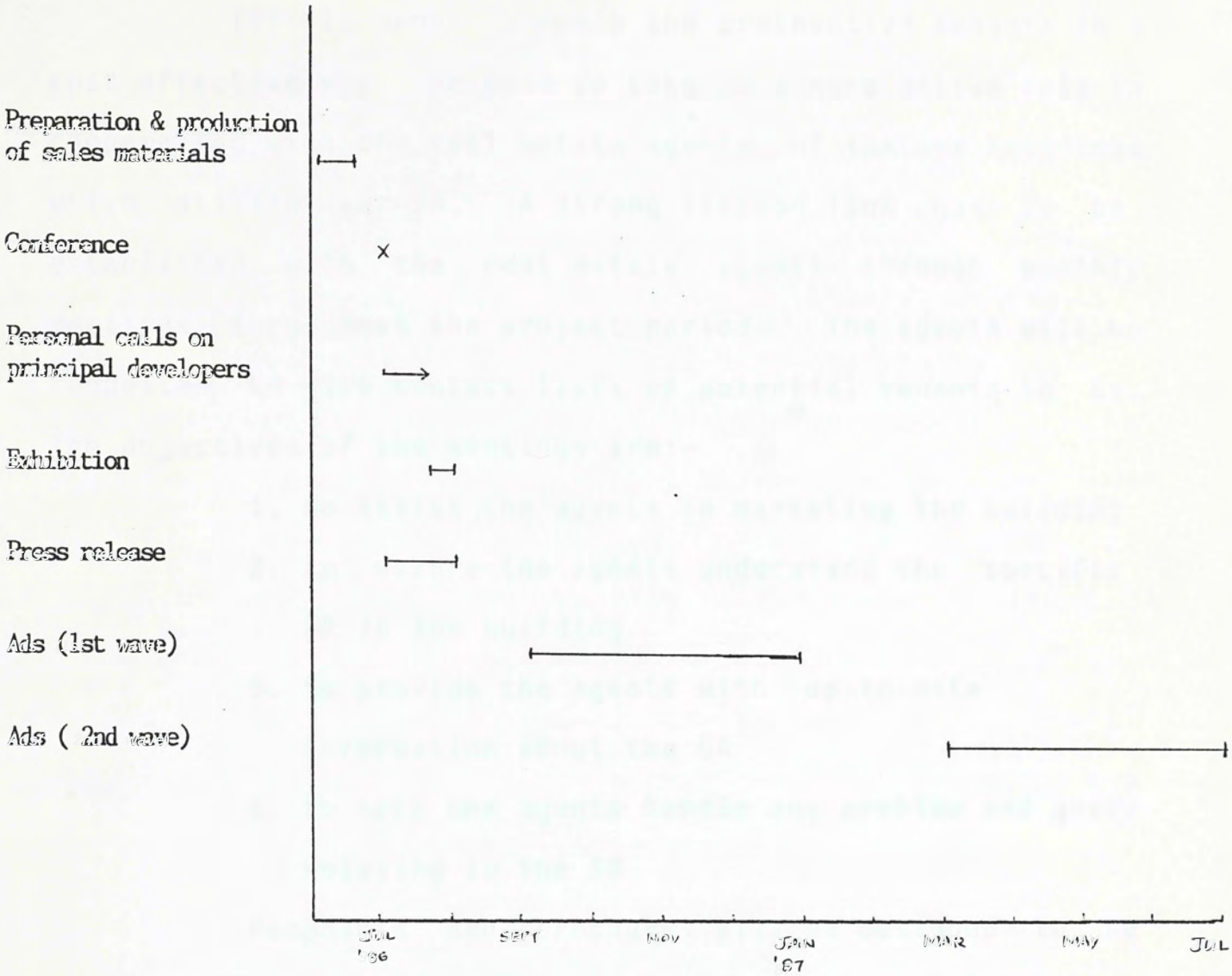
(c) Building Journal HongKong

(d) Pacific-the magazine for American Express Card Members

The timing will be the same as that of the conference and exhibition.

(5) Advertisements will be placed in the same media used for press release in order to have a coordinated impact on the readers. The headline for all ads will be " JUST RELAX ..... WE WILL GET EVERYTHING READY FOR YOU !" (Appendix 13).

The ads will be released for 4 consecutive months from September 1986 to December 1986. Then a second wave starting from March 1987 till June 1987 will be launched to reinforce the message. Fig. 7.2 shows the time schedule of the promotional campaign.



Schedule for the promotional campaign

(6) In order to reach the prospective tenants in a cost effective way, we have to take up a more active role in cooperating with the real estate agents of the new buildings which utilize our SR. A strong liaison link has to be established with the real estate agents through monthly meetings throughout the project period. The agents will be requested to give contact lists of potential tenants to us. The objectives of the meetings are:-

1. to assist the agents in marketing the building
2. to ensure the agents understand the specific SR in the building
3. to provide the agents with up-to-date information about the SR
4. to help the agents handle any problem and query relating to the SR

Pamphlets and brochures will be designed to be given to the agents for onward despatch to potential tenants.

(7) With the contact lists provided by the real estate agents, the sales force will organise direct mail to the potential tenants. The direct mail serves to introduce specific shared resources services and products available to the tenant and the cost and benefits of subscribing the SR.

(8) Telephone selling will be conducted to the existing tenants of the intelligent building not yet utilizing the SR. This will be followed up by presentations if appropriate.

(9) Monthly newsletters about SR new services, products and developments will be sent to the tenants who are

and are not SR users to increase the subscription rate.

Controlling Measures

A market survey will be launched after the whole promotional campaign is conducted, to retest the SR users' and non-users' perception of SRC. The same questionnaire with limited modifications will be used again in order to have a common base for evaluating the effectiveness of the promotional campaign. The result of the survey will be analysed and appropriate corrective measures e.g. redesigning a new series of advertisement; new training for the salesforce etc., will be taken. The increase or decrease of subscription rate is also a useful data to indicate the effectiveness of the promotional campaign.

7.4 Budget Consideration

Estimated Revenue

With reference to the CWS Telephone Systems Cost Comparison (Appendices 5 & 6), we have tried to estimate the total revenue of an SR building. Since the most widely used SR is telephone extensions and service, it is being used as an estimator.

The CWS monthly rent and maintenance charges :-

Total rent collected from A to I	= HK$	85,599
Total area in sq. m. of A to I	=	17014.5 (187,160 sq. ft.)
Revenue per sq. m.	= HK$	5.027

For a building with an area of 111,500 sq. m. (as of the Exchange Square I & II) the total revenue collected in a month from such SR is estimated to be :-

111,500 x HK$ 5.027 = HK$ 560,510

If 80% of the tenants are using the SR. , the total revenue collected is 560,510 x 0.80 = HK$ 448,408

Annual Revenue = HK$ 5,380,900

(This amount is only based on telephone system.)

Budget for the promotional campaign:-

Conference	HK$ 100,000
Exhibition	200,000
Personal calls/presentation	400,000
Advertisement	800,000
Sales materials	200,000
Direct mail	60,000
Telephone selling	40,000
Monthly newsletter	200,000
Total	HK$ 2,000,000

Since this promotional campaign aims for promoting the overall image of the SRC, we would highly recommend this program to be launched based on the analysis of the estimated revenue and budget consideration.

CHAPTER VIII

CONCLUSION AND SUMMARY

This report aims to study the status of the information technology in Hong Kong using a case study approach. This is possible because the high level of Hong Kong's information technology is being "manifested" by the Exchange Square ---- Asia's first intelligent building ever-built. As a matter of fact, only a dozen comparable examples of its kind exists in the world today.

The Exchange Square exhibits the most advanced information technology of the world because of its SHARED RESOURCES CONCEPT (SRC). In the most simplest term, SRC means every floor of the specific intelligent building features central built-in wiring available to every tenant, large or small, allowing them access to powerful and versatile office automation facilities .... word processing, personal computing and communications. In other words, sharing an integrated of telecommunications and office automation systems on a multi-tenant basis. We have focused on this concept and launched library research, personal interviews, and questionnaire survey to study SRC in depth. We found that most of the existing tenants of the Exchange Square do not have a clear understanding of SRC. Some of them even

perceived SRC as expensive and not satisfying their companies needs. The results also indicate that the size of the offices is not an important characteristic of the SR users. The SR users and non-users both may have 2 to 200 employees or 300 square metre to 300,000 square metre office space. It also indicates that SR users may engage in any industry viz. banking/finance, trading, professional, communications. We would conclude that SR users / non-users do not have any size-specific or industry-specific, even though the benefits viz. (1) no initial capital outlay required

(2) immediate availability

(3) no equipment crowding

(4) total solution

(5) high flexibility etc,

seem to suggest that it is most appealing to small, medium sized companies in the financial field. The non-users of the SR expressed that their main considerations were:

(1) quality of the services and equipment

(2) price

(3) suppliers' reputation

They perceived the main problem of SRC was the danger of information leakage and high charges.

Besides conducting the questionnaire survey, we also researched the market profile of the information technology field which, we have divided into specifically into the computer and communications market. Information market, as a whole, in Hong Kong is a fast changing business

and much research and development on new products have to be made by each company so as to maintain its market share. And for SRC, its real competitor is those office automation suppliers. We would say that the potential market for the future development of SRC is highly based on the property market profile study.

With these information and analyses, we believed that to promote the SRC , an extensive and well-coordinated marketing plan is essential. The marketing plan is formulated for promoting SRC in Hong Kong with objectives as follows:

(1) To maintain a high standard of quality of the Concept by providing 24 hour consultancy and on-site engineering and maintenance services to the existing and potential tenants such that the total number of complaints received from each user in a month is not more than twice the number of services he is using.

(2) To achieve 80% of total occupants in the building using the services.

(3) To encourage each user to employ at least 50% of the different kinds of services available to them.

(4) To promote the benefits and values of SRC to all the principal developers of Hong Kong so that 30% of them will employ the SRC.

(5) To educate 80% potential tenants of the intelligent building about SRC benefits by the end of 1987.

We have identified two target audiences for this marketing plan as follows:

(1) The end-users of the SR who want to move to a

new office for expansion or growth with anticipation of increasing demand for office automation and communications.

(2) The principal developers of Hong Kong.

Specific strategies and tactics are developed to achieve the above objectives.

APPENDIX 1

Questionnaire Covering Letter

THE CHINESE UNIVERSITY OF HONG KONG 香港中文大學

SHATIN · NT · HONG KONG · TEL. 0-6352111 · TELEGRAM · SINOVERSITY TELEX · 50301 CUHK HX · 香港新界沙田 · 電話：〇 · 六三五二一壹一

工商管理學院碩士課程部
MBA Division
Faculty of Business Administration

TEL. 0-6352783

16th Jan., 1986

學生專題研究用箋
Student Research Projects

Dear Sir,

Research on the 'Shared Resources Concept'

This building in which your office is located is one of the world's most sophisticated and advanced " smart buildings". The concept of "Shared Resources " on a multi-tenant basis i.e. all the tenants may share services like telecommunication, computer management softwares, courier etc., is used for the first time in Hong Kong.

We are MBA students of the Chinese University of Hong Kong and have much interest in investigating the future market potential and feasibility of this exciting concept.

We cordially invite you to take a few minutes of your time to carefully complete the attached questionnaire and use the enclosed white business reply envelope to send us back the questionnaire in early February. Your accurate information will help establish important base data for this study. All information gathered will be kept strictly confidential and will only be published in an integrated compiled form.

Your kind assistance in this matter is highly appreciated.

Sincerely,

Maria Assumpta Au

Thomas Yung

APPENDIX 2

Research Questionnaire

RESEARCH ON 'SHARED RESOURCES CONCEPT'

Direction : Please fill in or check against the appropriate space(s).

GENERAL INFORMATION

(1) Which industry is your company in?

__ Banking / Finance / Accounting
__ Construction / Property
__ Manufacturing
__ Professional (doctor, lawyer etc.)
__ Other _____
__ Insurance
__ Trading
__ Communication
__ Consulate

(2) What is your company office size in square meter approximately?

_____

(3) Approximately how many employees are in your company?

_____

(4) Is your company newly established in Hong Kong?

__ Yes
__ No

(5) Your company is

__ Locally owned
__ Foreign based (please specify_____)

(6) Which district is your company previously located before moving into this building?

_____

(7) Why does your company move into the present building?

__ For building location and convenience sake
__ For prestige
__ For the management style of this building
__ For the integrated telecommunications & data systems in the building
__ Other _____

(8) How does your company learn of the integrated telecommunications & data systems in the building?

__ From advertisement in the newspaper & magazines before moving into the building.
__ From the real estate agent
__ After moving into the building
__ From friends or business associates
__ Other _____

(9) Consider the ratio of office automation equipment to end users in your company, which is true?

___ Generally, several people share the use of one type of office equipment (e.g. PC, data terminal, telephone etc.)

___ Generally, each user has his own set of equipment.

___ Some are shared while some are owned by individuals.

(10) Has your company used any of the facilities offered in the shared communication and office automation system of the building?

___ Yes ___ No

(If yes please go to PART A)

(If no please go to PART B)

PART A

(For Users of the Shared Resources System ONLY)

(11) Which of the following communication or office automaton services of this building is (are) used by your company?

___ PABX
___ Viewdata
___ Dialcom
___ Fonemail
___ Electronic mail
___ telephone extensions
___ computer data services
___ data terminal
___ word processor
___ printer
___ telex terminal
___ telegraph modem
___ Facsimile
___ photocopier
___ Conference room service
___ Operator answering
___ Courier service
___ Secretarial service
___ Binding service
___ Central dictation system

(12) Please list 3 services which are most frequently used.

_____

_____

_____

(13) Please list 3 services which are occasionally used.

_____

_____

_____

(14) Which service(s) of the shared resources system that your company would not use and has preferred to install its own set of facilities?

_____

_____

(15) What is(are) the major problem(s) encountered when using the services?

__ The incompatibility of the equipment
__ Insufficient knowledge & training of staff in using the services
__ Maintenance of the equipment
__ Quality of service not up to requirement
__ Other _____

(16) Please list three services which cause the major problems.

_____ _____ _____

(17) How do your staff usually solve the problems in using the equipment/ service?

__ Find help from other staff who have used the equipment/service
__ Find help from internal consultant
__ Find help from external consultant - the supplier
__ Look up the equipment menu for problem setting
__ Other _____

(18) Please estimate the % of monthly expense in using the services of the shared system to the monthly expenditure of your company.

__1-5% __6-10% __11-15% __16-20%
__21-25% __26-30% __31-35% __More than 35%.

(Please go to PART C)

PART B

(For Non-Users of Shared Resources System ONLY)

(19) Which of the followings is(are) the reason(s) for your company not using the services of the shared system?

__ Your company has its own communication equipment and supporting staff to provide the services.
__ Security reasons
__ The charges for the services are too high
__ The equipment and the communication services of the shared system do not fulfill your company requirement.
__ Other _____

(20) Would your company consider using the communication services of the shared resources system when the present capacity of your office equipment (e.g. computer, wordprocessor etc.) become insufficient in the future?

__Yes __No

(21) a. If yes, why?

___ For convenience
___ The shared resources can satisfy your company requirement.
___ To save large replacement cost.
___ Other _____.

b. If no, why?

___ Security reasons.
___ Incompatibility of equipment.
___ Extra supporting staff can be obtained elsewhere.
___ Other _____.

(22) Which of the following communication or office automaton services does your company have?

___ PABX
___ Viewdata
___ intercom
___ Fonemail
___ Electronic mail
___ telephone extensions
___ computer terminal
___ Other_____
___ dictation system
___ word processor
___ printer
___ telex terminal
___ Facsimile
___ photocopier
___ typewriter

(23) Please list three services which are used extensively.

_____ _____ _____

(24) Please estimate the approximate % of monthly operating cost on office automation equipment to the monthly expenditure of your company.

___1-5% ___6-10% ___11-15% ___16-20%
___21-25% ___26-30% ___31- 35% ___36-40%
___More than 40%.

(25) Please specify three consultants or suppliers of the office automation equipment used in your office.

_____
_____
_____

(Please answer PART C)

PART C

(For Users and Non-Users)

(26) Who (or which department) is responsible for planning the office automation of your company?

_____

(27) Which of the following criteria does your company use to select the office automation equipment?

__ Vendor recommendation.
__ Information read from magazine or talk to friends.
__ Based on the price of the equipment and services.
__ Based on the quality of the equipment and services.
__ Other _____

(28) Which area(s) of office automation do you think will be in great demand in future?

__ Computer data processing
__ Word-processing
__ Information storage and retrieval
__ Graphic processing
__ Telecommunications
__ Other_____

(29) Please do feel liberty to give reasons for your answer in Q.28.

_____
_____
_____

FOLLOW UP

(30) Do you want to have a copy of the questionnaire compiled result?

__Yes __No

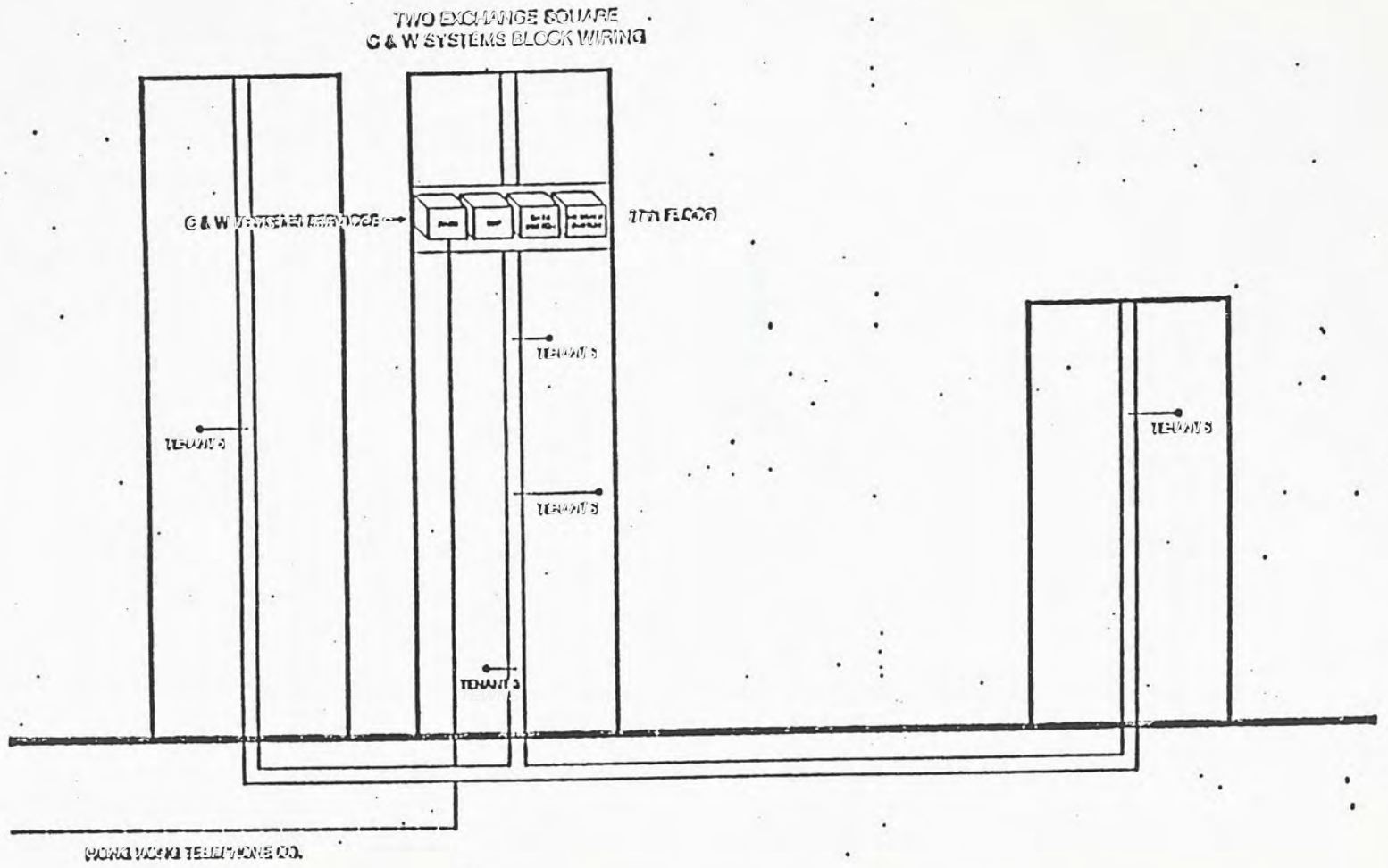
Name:_____

Address:_____
_____

------Thank you------

APPENDIX 3

SHARED RESOURCES CONCEPT



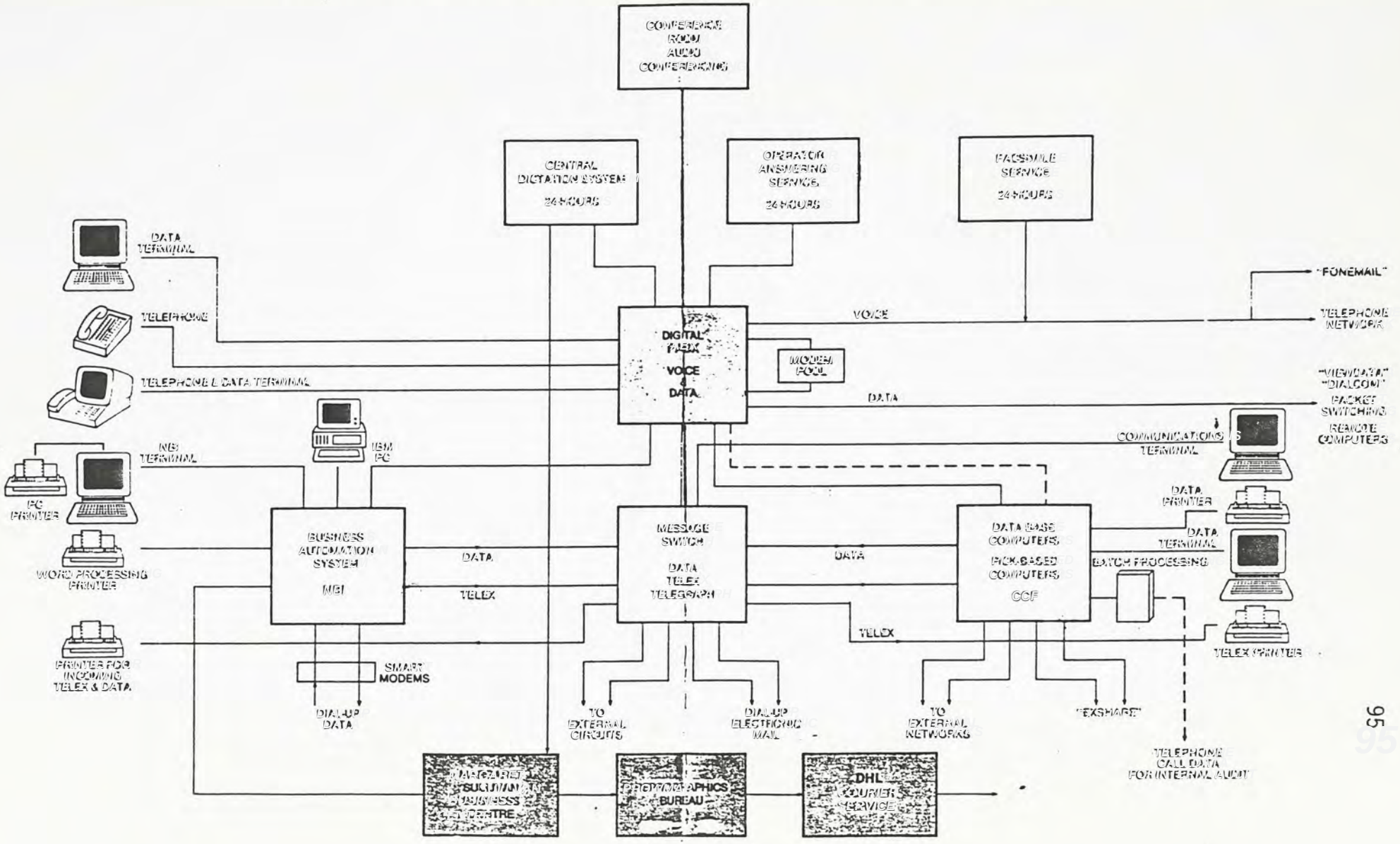
A cross-sectional view of the shared resources concept in Exchange Square

APPENDIX 4

CABLE AND WIRELESS
SYSTEMS SERVICES
EXCHANGE SQUARE

SHARED RESOURCES

EXCHANGE SQUARE — THE INTELLIGENT BUILDING



APPENDIX 5

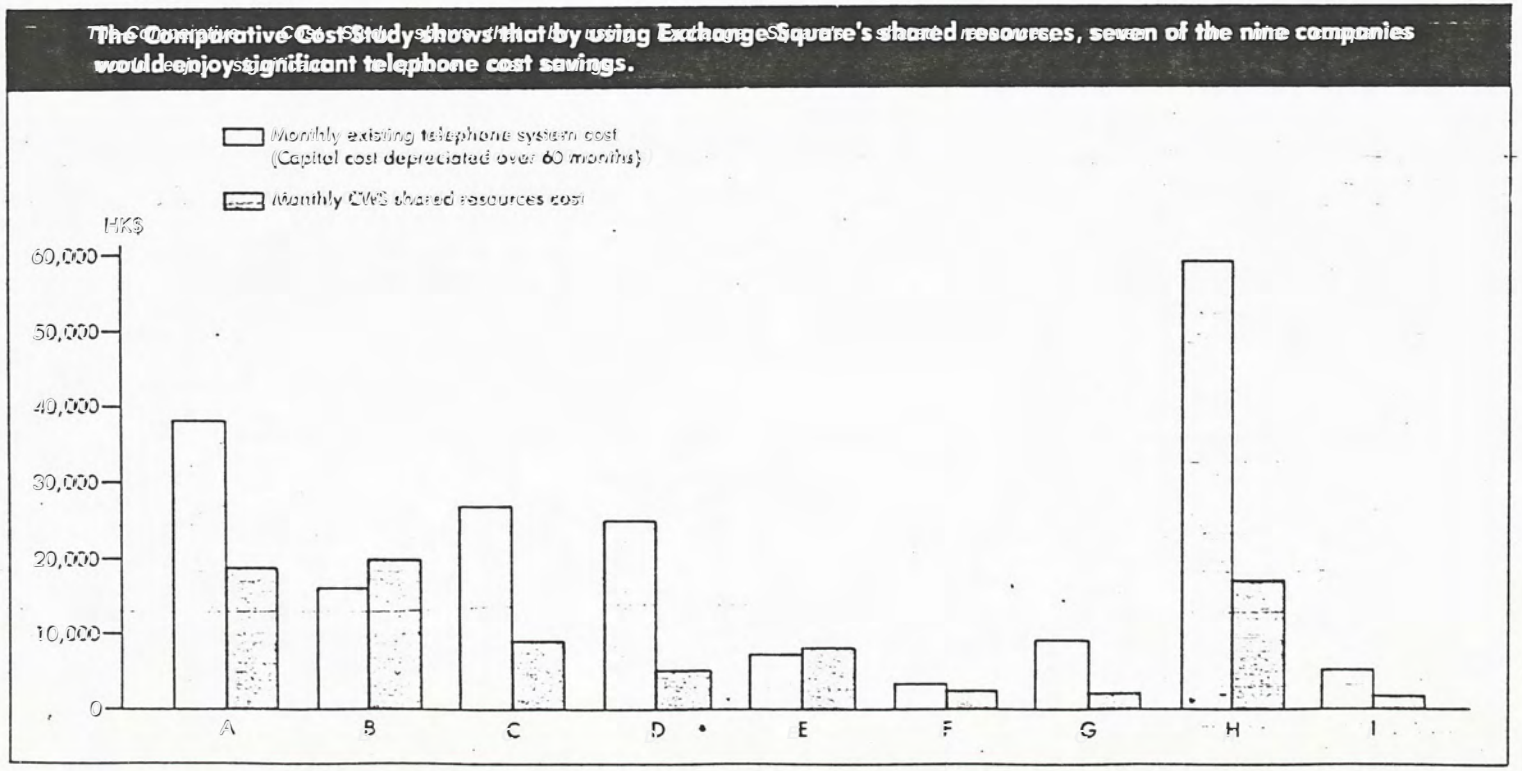
A Comparative Cost Study on Tenants Using Exchange Square's Shared Resources Concept with Tenants Using Independent Telephone Systems.

TENANT		EXISTING TELEPHONE SYSTEM		EXISTING TELEPHONE SYSTEM COSTS						CWS SHARED RESOURCES
Hongkong Land associated companies and a random selection of tenants	Office area in sq. ft	Number of lines	Number of extensions	Capital cost	Capital cost depreciated over 60 months (a)	Capital cost depreciated over 84 months (b)	Monthly maintenance cost (c)	Total monthly cost (a)+(c)	Total monthly cost (b)+(c)	Monthly rent and maintenance
				HK$	HK$	HK$	HK$	HK$	HK$	HK$
A	77,487	59	293	226,772	3,780	2,700	34,271	38,051	36,971	18,585
B	51,000	48	338	612,300	10,205	7,289	5,408	15,613	12,697	19,914
C	13,600	30	150	172,808	2,880	2,057	23,400	26,280	25,457	9,480
D	12,000	20	60	250,000	4,167	2,976	20,000	24,167	22,976	4,496
E	11,525	25	121	303,596	5,060	3,614	1,694	6,754	5,308	7,707
F	8,000	16	62	170,000	2,833	2,024	992	3,825	3,016	3,750
G	6,548	23	48	37,894	632	451	8,500	9,132	8,951	3,542
H	5,000	86	224	1,586,000	26,433	18,881	32,780	59,213	51,661	16,866
I	2,000	6	19	49,075	818	584	4,100	4,918	4,684	1,259

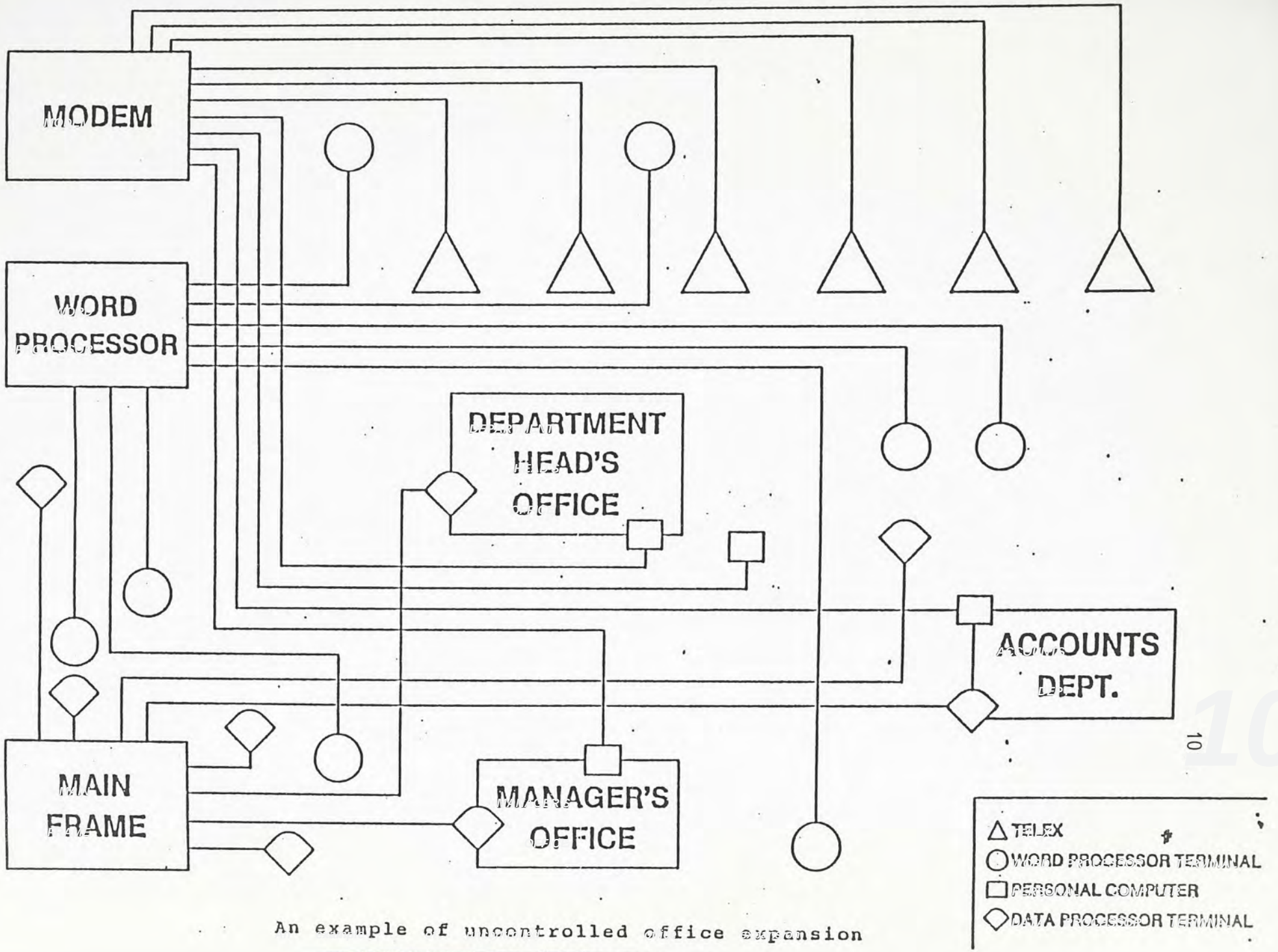
Multi-floor tenants using own PABX systems must use CWS wires to go inter-floor at the standard Telco charge of HK$10 per pair per month.

APPENDIX 6

The Comparative Cost Study shows that by using Exchange Square's shared resources, seven of the nine companies would enjoy significant telephone cost savings.



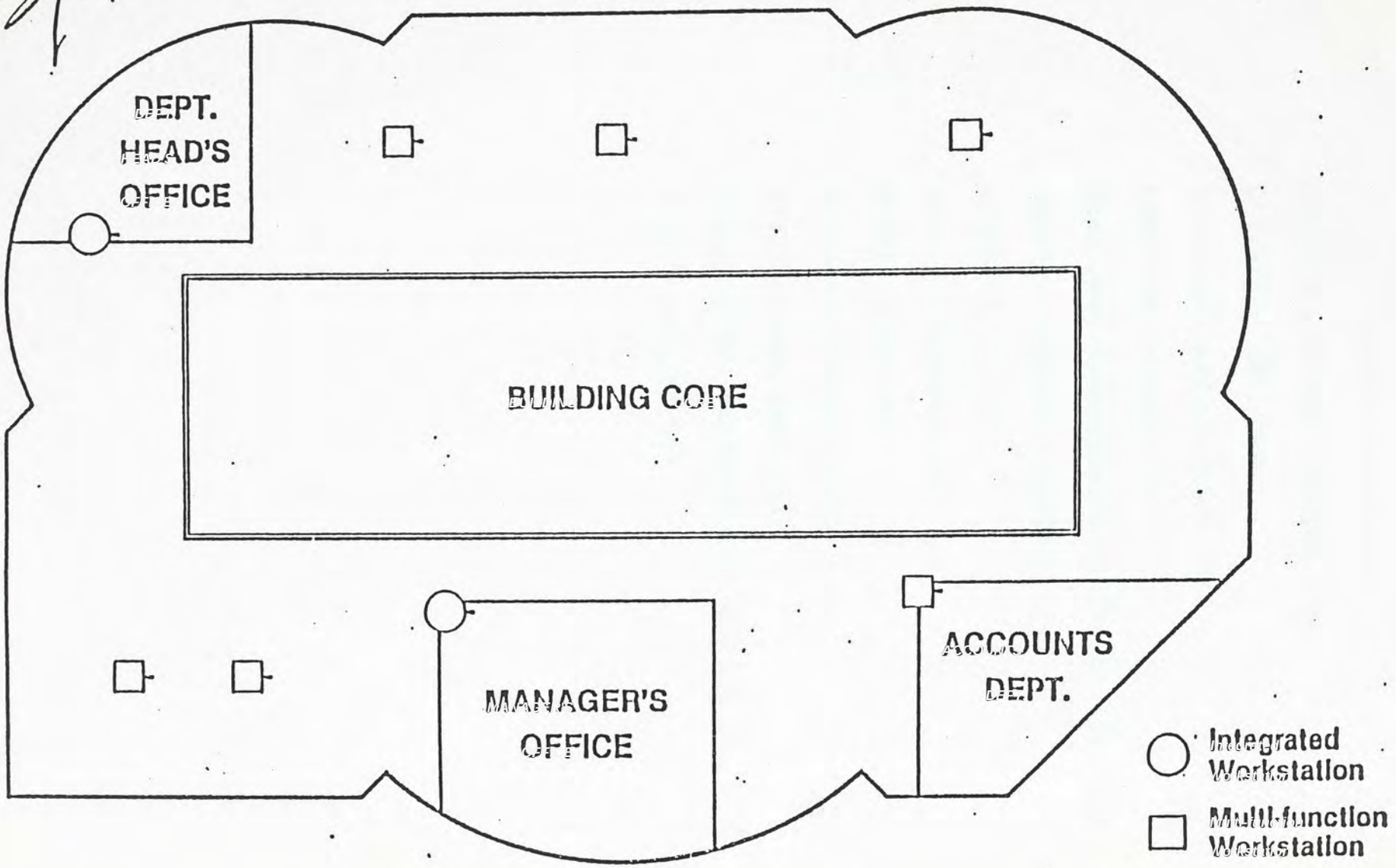
APPENDIX 7



An example of uncontrolled office expansion

APPENDIX 8

Exchange Square



An integrated office in Exchange Square

APPENDIX 9

MEMBERS OF THE HKTA

Cable & Wireless Systems Ltd.

Chevalier (HK) Ltd.

Ericsson Communication (HK) Ltd.

Fourseas Telecom Ltd.

Hong Kong Communication Equipment Co. Ltd

Jardine Engineering Corp. Ltd.

Jebsen & Co. Ltd.

Matlock Telecom Ltd.

Mitel (Asia) Ltd.

Northern Telecom (Asia) Ltd.

Philips Hong Kong Ltd.

Trans-world Telephone Engineering Co. Ltd.

Tricom Systems Ltd.

APPENDIX 10

Integrated Results of Questionnaire

RESEARCH ON 'SHARED RESOURCES CONCEPT'

(RESULT)

Note: Number in bracket means number of respondents.

GENERAL INFORMATION

(1) Which industry is your company in?

11 Banking / Finance / Accounting
__ Insurance
__ Construction / Property
4 Trading
__ Manufacturing
1 Communication
2 Professional (doctor, lawyer etc.)
__ Consulate
5 Other : Treasury Office & Consumer Products Co.
Government Dept., Advertising Co., Computer Co.

(2) What is your company office size in square meter approximately?

51-200 (10), 201-400 (6), 401-600 (2), 601-800 (2), 1201-1300 (1), 3001-4000 (2), More than 300,000 (2).

(3) Approximately how many employees are in your company?

1-10 (12), 11-20 (8), 21-30 (3), 50 (2), 80 (1), 150 (1), 200 (1).

(4) Is your company newly established in Hong Kong?

13 Yes
15 No

(5) Your company is

1 Locally owned
24 Foreign based (please specify_____)

(6) Which district is your company previously located before moving into this building?

Central: 14 Tsimshatsui: 2

(7) Why does your company move into the present building?

19 For building location and convenience sake
14 For prestige
9 For the management style of this building
4 For the integrated telecommunications & data systems in the building
5 Other : Need more space for expansion; expiration of old contract.

(8) How does your company learn of the integrated telecommunications & data systems in the building?

4 From advertisement in the newspaper & magazines before moving into the building.
11 From the real estate agent
1 After moving into the building
__ From friends or business associates
2 Other _____

(9) Consider the ratio of office automation equipment to end users in your company, which is true?

7 Generally, several people share the use of one type of office equipment (e.g. PC, data terminal, telephone etc.)

11 Generally, each user has his own set of equipment.

6 Some are shared while some are owned by individuals.

(10) Has your company used any of the facilities offered in the shared communication and office automation system of the building?

12 Yes 16 No

(If yes please go to PART A)

(If no please go to PART B)

PART A

(For Users of the Shared Resources System ONLY)

(11) Which of the following communication or office automaton services of this building is (are) used by your company?

6 PABX	6 telex terminal
__ Viewdata	__ telegraph modem
__ Dialcom	2 Facsimile
__ Fonemail	1 photocopier
1 Electronic mail	__ Conference room service
6 telephone extensions	1 Operator answering
1 computer data services	2 Courier service
3 data terminal	1 Secretarial service
4 word processor	__ Binding service
4 printer	__ Central dictation system

(12) Please list 3 services which are most frequently used.

PABX (4), Printer (2), WP (3), Telex(2), Fax (2), Telephone (3).

(13) Please list 3 services which are occasionally used.

Dictation system (1), Courier Service (1), Secretarial Service (2), Binding Service (1), Conference Room (1).

(14) Which service(s) of the shared resources system that your company would not use and has preferred to install its own set of facilities?

WP (4), Fax (3), Photocopier (4), Conference Rm. (3), Telex (5), E Mail (1), PABX (2), Secretarial Services (3), Binding (1), Courier Services (2), Printer (2), Operator Answering (1), Computer Data Services (3).

(15) What is(are) the major problem(s) encountered when using the services?

_2_ The incompatibility of the equipment
__ Insufficient knowledge & training of staff in using the services
__ Maintenance of the equipment
_4_ Quality of service not up to requirement
_3_ Other : Occasional defects, frequent breakdown, too expensive.

(16) Please list three services which cause the major problems.
WP, Telex, Telephone (4), Computer Data Services, Dialcom.

(17) How do your staff usually solve the problems in using the equipment/ service?

_3_ Find help from other staff who have used the equipment/service
_1_ Find help from internal consultant
_9_ Find help from external consultant - the supplier
_1_ Look up the equipment menu for problem setting
__ Other _____

(18) Please estimate the % of monthly expense in using the services of the shared system to the monthly expenditure of your company.

_8_ 1-5% _1_ 6-10% _1_ 11-15% _1_ 16-20%
__ 21-25% __ 26-30% __ 31-35% __ More than 35%.

(Please go to PART C)

PART B

(For Non-Users of Shared Resources System ONLY)

(19) Which of the followings is(are) the reason(s) for your company not using the services of the shared system?

_13_ Your company has its own communication equipment and supporting staff to provide the services.
_6_ Security reasons
_6_ The charges for the services are too high
_4_ The equipment and the communication services of the shared system do not fulfill your company requirement.
_2_ Other : The SRC caters the needs of large companies.

(20) Would your company consider using the communication services of the shared resources system when the present capacity of your office equipment (e.g. computer, wordprocessor etc.) become insufficient in the future?

_6_ Yes _11_ No

(21) a. If yes, why?

3 For convenience
2 The shared resources can satisfy your company requirement.
1 To save large replacement cost.
1 Other : Cheaper will use.

b. If no, why?

6 Security reasons.
3 Incompatibility of equipment.
3 Extra supporting staff can be obtained elsewhere.
3 Other : Too expensive.

(22) Which of the following communication or office automaton services does your company have?

7 PABX	5 dictation system
1 Viewdata	10 word processor
9 intercom	11 printer
__ Fonemail	16 telex terminal
3 Electronic mail	14 Facsimile
17 telephone extensions	16 photocopier
11 computer terminal	19 typewriter

1 Other_____

(23) Please list three services which are used extensively.
Fax(8), Typewriter(5), Telephone(4), PABX(2), E Mail(1), WP(6),Telex(8), Photocopier(6), Computer(2).

(24) Please estimate the approximate % of monthly operating cost on office automation equipment to the monthly expenditure of your company.

7 1-5%	5 6-10%	2 11-15%	2 16-20%
1 21-25%	1 26-30%	__31- 35%	__36-40%

__More than 40%.

(25) Please specify three consultants or suppliers of the office automation equipment used in your office.
Jardine, NBI(3), IBM(8), Canon(3), Xerox(4), ABA, Wang, Gilman, NCR, Cheavalier, CSL, Northern Telecom.

(Please answer PART C)

PART C
(For Users and Non-Users)

(26) Who (or which department) is responsible for planning the office automation of your company?
BOD, EDP & Communication Staff, Financial Controller & Account, Senior Management.

(27) Which of the following criteria does your company use to select the office automation equipment?
2 Vendor recommendation.
7 Information read from magazine or talk to friends.
10 Based on the price of the equipment and services.
21 Based on the quality of the equipment and services.
4 Other : Suit for co.'s requirement; budget.

(28) Which area(s) of office automation do you think will be in great demand in future?
15 Computer data processing
5 Graphic processing
8 Word-processing
18 Telecommunications
16 Information storage and retrieval
__ Other_____

(29) Please do feel liberty to give reasons for your answer in Q.28.
Information technology : key to the success of office operation; companies require high efficiency and accuracy; concern nature of business.

FOLLOW UP

(30) Do you want to have a copy of the questionnaire compiled result?
__Yes __No
Name:_____
Address:_____
_____

------Thank you------

APPENDIX 11

SHARED RESOURCES CONCEPT

THE WAVE OF THE FUTURE

APPENDIX 12

PRINCIPAL DEVELOPERS IN HONG KONG

Hong Kong Land

Cheung Kong

Sun Hung Kai

Swire Properties

Hang Lung

Eagle

Tai Cheung

Hopewell

APPENDIX 13

JUST RELAX II

WE WILL GET EVERYTHING

READY FOR YOU .....

We can always keep our promise because of our SHARED RESOURCES CONCEPT in the _(building's name)_____. Every floor of the _____ features central built-in wiring -- available to every tenant, large or small, powerful and versatile office automation facilities ..... word processing, personal computing and communications. So you can enjoy your favourite post and leave the work to us. For further information, please contact Mr. KKK or Miss UUU at 5- 1234432.
We are looking forward to meeting you!

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